

**SERVICE
MANUAL 2252**

marantz

model 2252

Stereophonic Receiver

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1. INTRODUCTION

This service manual was prepared for use by Authorized Warranty Stations and contains service information for Marantz Model 2252 Stereophonic Receiver.

Servicing information and voltage data included in this manual are intended for use by the knowledgeable and experienced technician only. All instructions should be read carefully. No attempt should be made to proceed without a good understanding of the operations in the receiver.

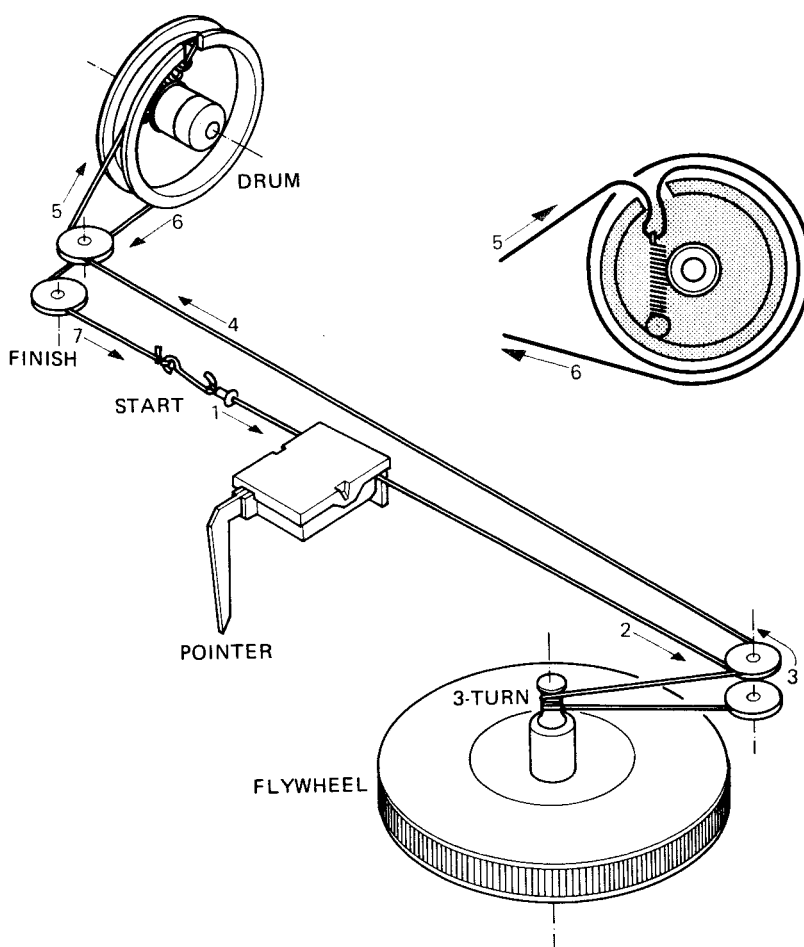
The parts list furnishes information by which replacement parts may be ordered from the Marantz Company. A simple description is included for parts which can usually be obtained through local suppliers.

2. SERVICE NOTES

As can be seen from the circuit diagram, the chassis of Model 2252 consists of the following units. Each unit mounted on a printed circuit board is described within the square enclosed by a bold dotted line on the circuit diagram.

1. FM Front End mounted on P.W.B. P 100
2. FM and AM Tuner mounted on P.W.B. P 200
3. EQ Amplifier mounted on P.W.B. P 400
4. Tone Amplifier mounted on P.W.B. PE01
5. Dolby FM, Tape Monitor, Mono
and High Filter Switch Unit mounted on P.W.B. PH01
6. Loudness, Muting and Speaker
Switch Unit mounted on P.W.B. PT01
7. Power Amplifier mounted on P.W.B. P 700
8. Power Supply mounted on P.W.B. P 800
9. Dial Lamp Unit mounted on P.W.B. PZ01

● DIAL STRINGING



3. TEST EQUIPMENT REQUIRED FOR SERVICING

Table 1 lists the test equipment required for servicing the Model 2252 Receiver.

Item	Manufacturer and Model No.	Use
AM Signal Generator		Signal source for AM alignment
Test Loop		Use with AM Signal Generator
FM Signal Generator MPX Signal Generator	Sound Technology Model 1000A	Signal source for FM alignment Stereo separation alignment and trouble shooting
Distortion Analyzer		Distortion measurements
Audio Oscillator AC VTVM	Sound Technology Model 1700A	Sinewave and squarewave signal source voltage measurements (AC)
Oscilloscope	Tektronix Model T932 Philips Model 3232	Waveform analysis and trouble shooting and ASO alignment
Frequency Counter	Fluke Model 1900A	MPX Oscillator adjustment (VCO)
Circuit Tester		Trouble shooting
DC VTVM	Fluke Model 8000 "Digital" Simpson Model 313, Triplet Model 801	Voltage measurements (DC)
AC Wattmeter	Simpson Model 1379	Monitors primary power to amplifier
AC Ammeter	Commercial Grade (1-10A)	Monitors amplifier output under short circuit condition
Line Voltmeter	Simpson Model 1359	Monitors potential of primary power to amplifier
Variable Autotransformer	Superior Electronic Co., Powerstat Model 116B-10A	Adjusts level of primary power to amplifier
Shorting Plug	Use phono plug with 600 ohm across center pin and shell	Shorts amplifier input to eliminate noise pickup
Output Load (8 ohms, 0.5%, 100W)	Commercial Grade	Provides 8-ohm load for amplifier output termination
Output Load (4 ohms, 0.5% 100W)	Commercial Grade	Provides 4-ohm load for amplifier output termination

4. AM ALIGNMENT PROCEDURE

4.1 AM IF ALIGNMENT

1. Connect a sweep generator to the L153 and an alignment scope to the resistor R162 (out side).
2. Rotate each core of IF transformers L155 and L156 for the maximum height and flat top symmetrical response.

4.2 AM FREQUENCY RANGE AND TRACKING ALIGNMENT

1. Set AM signal generator to 515 kHz. Turn the tuning capacitor fully closed (place the tuning pointer at the low end) and adjust the oscillator coil L154 for maximum audio output.
2. Set the signal generator to 1650 kHz. Place the tuning pointer in the high frequency end and adjust the oscillator trimmer on the oscillator tuning capacitor for maximum audio output.

3. Repeat steps 1 and 2 until no further adjustment is necessary.
4. Set the generator to 600 kHz, tune the receiver to the same frequency and adjust a slug core of AM ferrite rod antenna for maximum output.
5. Set the generator to 1400 kHz and tune the receiver to the same frequency and adjust the trimming capacitor on the antenna tuning capacitor for maximum output.
6. Repeat procedures 4 and 5 until no further adjustment is necessary.

NOTE

During tracking alignment reduce the signal generator output as necessary to avoid AGC action.

5. FM ALIGNMENT PROCEDURE

1. Connect an FM signal generator to the FM antenna terminals and an oscilloscope and an audio distortion analyzer to the tape output jack on the rear panel.
2. Set the FM SG to 87.4 MHz and provide about 3 to 5 μ V. Place the tuning pointer at the low frequency end by rotating the tuning knob and adjust the pitch of oscillator coil L107 to obtain maximum audio output.
3. Set the FM SG to 109 MHz and provide about 3 to 5 μ V. Rotate the tuning knob and place the tuning pointer at the high frequency end and adjust the trimming capacitor C121 for maximum output.
4. Repeat steps 2 and 3 until no further adjustment is necessary.
5. Set the FM SG to 90 MHz and tune the receiver to the same frequency. Decrease signal generator output until the audio output level decreases with the decreasing generator output. Adjust the pitch of ANTENNA coil L102 and RF coil L104 for maximum output.
6. Set the FM SG to 106 MHz and tune the receiver to the same frequency. Decrease the signal generator output until the audio output level decreases with the decreasing generator output. Adjust the trimming capacitors of ANTENNA and RF tuning circuits for maximum output.
7. Repeat steps 5 and 6 until no further adjustment is necessary.
8. Adjust the primary core (lower core) of discriminator transformer L202 so that the center tuning meter pointer indicates its center at no signal applied. Set the FM SG to 98 MHz and increase its output level 1 K μ V and tune the receiver to the same frequency so

that the center tuning meter pointer indicates its center. Adjust the secondary core (upper core) of L202 for minimum distortion.

6. STEREO SEPARATION ALIGNMENT

1. Set the FM SG to provide 1 K μ V at 98 MHz. Tune the receiver to the same frequency so that the center tuning meter pointer indicates its center. Then turn off the modulation of the FM SG, connect a frequency counter to test point J229 and adjust R301 so that the frequency counter may precisely read 76 kHz.
2. Modulate the FM SG with stereo composite signal consisting of only L or R channel (of course a pilot signal must be included).
3. Adjust the trimming resistor R317 for maximum and same separation in both channels.

7. MUTING THRESHOLD ADJUSTMENT

Set the FM SG output to provide 12.5 μ V (IHF) at 98 MHz and tune receiver to the same frequency. Adjust the trimming resistor R212 for the threshold level of 12.5 μ V. (During this adjustment turn the MUTING pushswitch "on".)

8. FM DOLBY LEVEL ADJUSTMENT

1. Set the FM SG to provide a 400 Hz, 50% modulated 98 MHz mono signal, at 1 K μ V output. Precisely tune the receiver to 98 MHz.
2. Depress the FM DOLBY pushswitch, and adjust R215 until the outputs of both channels are 580mV.

9. POWER AMPLIFIER ADJUSTMENT

Connect a VTVM between J726(+) and J723(–) and adjust the trimming resistor R731 until the VTVM reads 8mV DC. And next, connect a VTVM between J723 and J709 (GROUND) and adjust the trimming resistor R711 until the VTVM reads 0 mV DC. Do over again. For the other channel, connect the VTVM between J727(+) and J722(–) and adjust the R732 for the same reading, and connect the VTVM between J722 and J709 and adjust the R712 for the same reading. Do over again.

10. POWER SUPPLY ADJUSTMENT

Connect a VTVM between J805(+) and J814(–) and adjust R808 until the VTVM reads 35.0 V under no signal condition.

● EUROPEAN MODEL ONLY

11. VOLTAGE CONVERSION

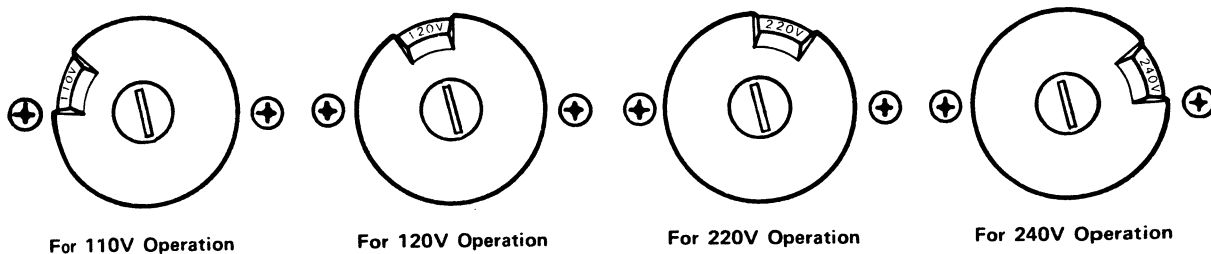
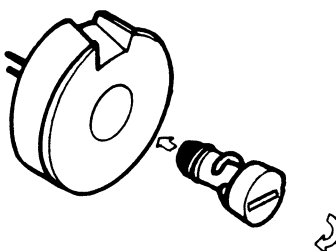
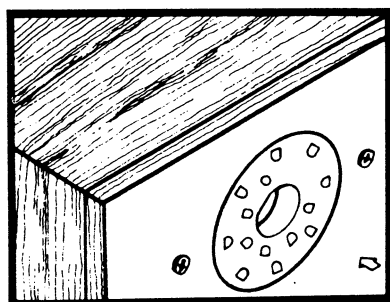
This Model is equipped with a universal power transformer to permit operation at 110, 120, 220 and 240 V AC 50/60 Hz.

To convert the unit to the required voltage, set the plug as illustrated so that you can adjust the voltage as required.

CAUTION

DISCONNECT POWER SUPPLY CORD FROM AC OUTLET BEFORE CONVERTING VOLTAGE.

11.1 VOLTAGE CONVERSION CHART



12. FTZ REGULATION

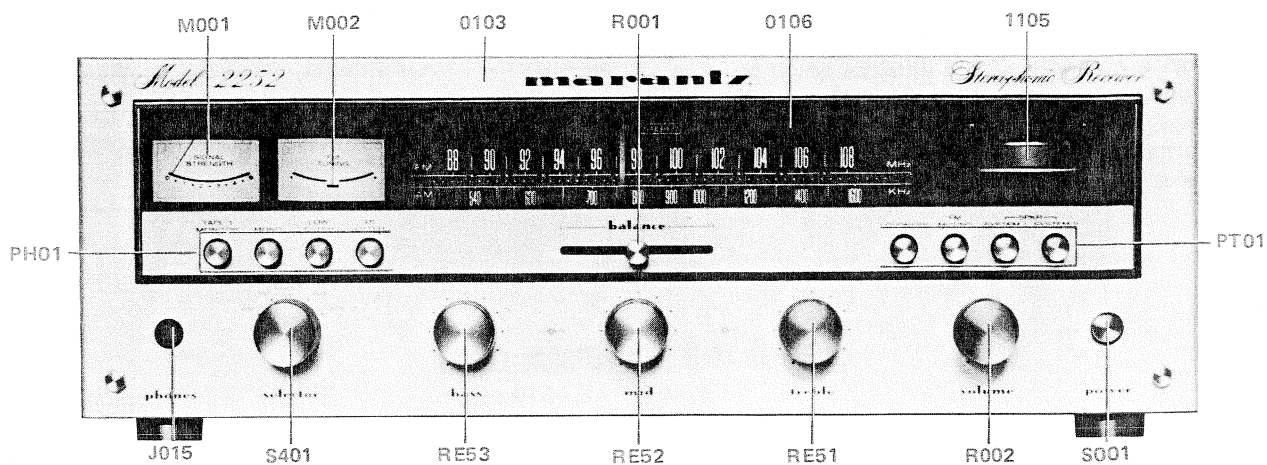
Instruction for the use in the range other than specified in FTZ codes.

Achtung für die Leute, die in dem Gebiet wohnen, wo die FTZ-Bestimmungen vorherrschend sind.

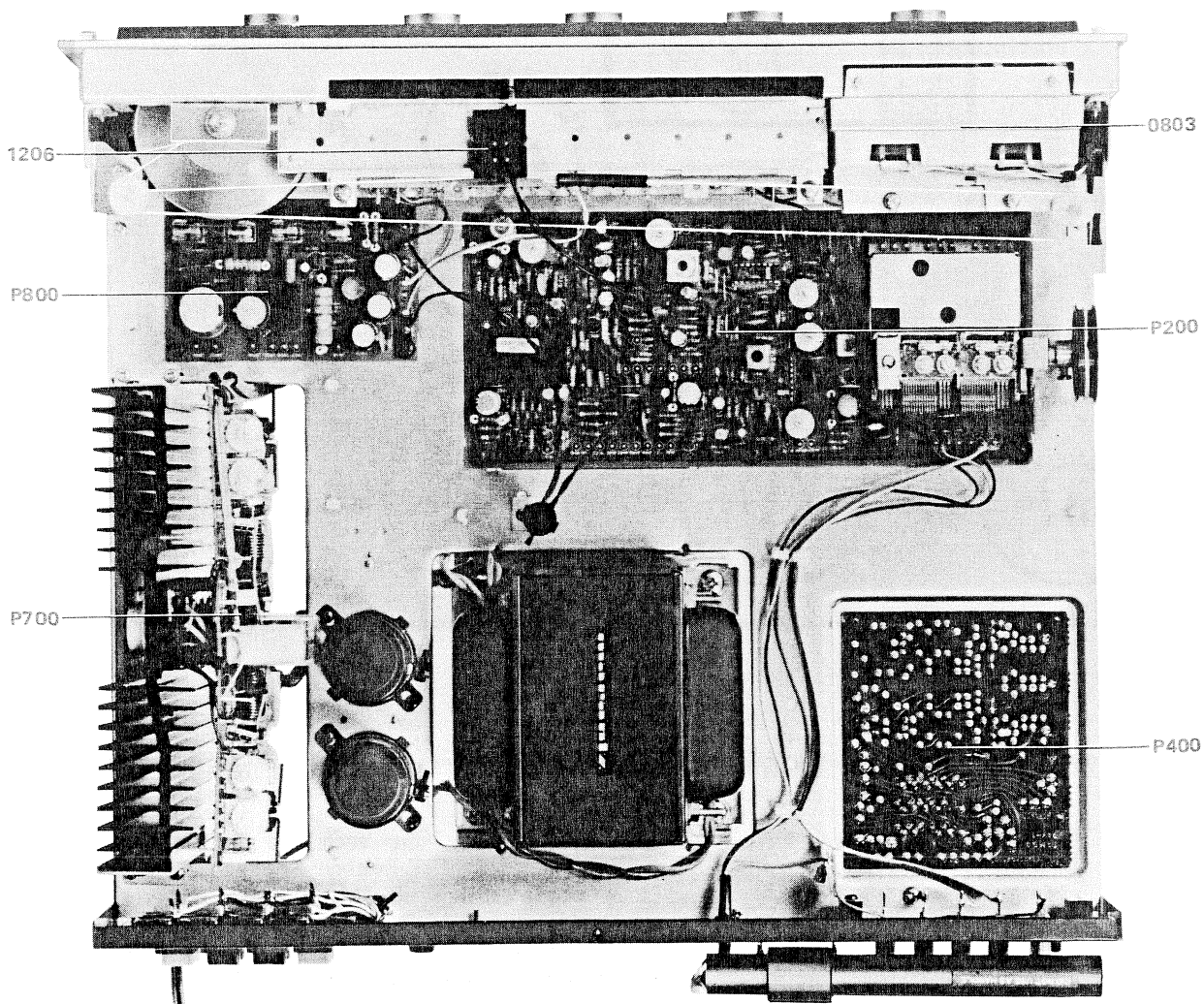
Sollte das Gerät auch für Frequenzen ausserhalb des in den FTZ-Bestimmungen angegebenen Bereiches empfangebereit sein, bitten wir, den Bereich durch Nachstellen des Kernes in der Oszillatorspule (in der Abbildung mit "FTZ" gekennzeichnet) so zu korrigieren, dass er den Bestimmungen entspricht.

13. MAJOR COMPONENT LOCATIONS

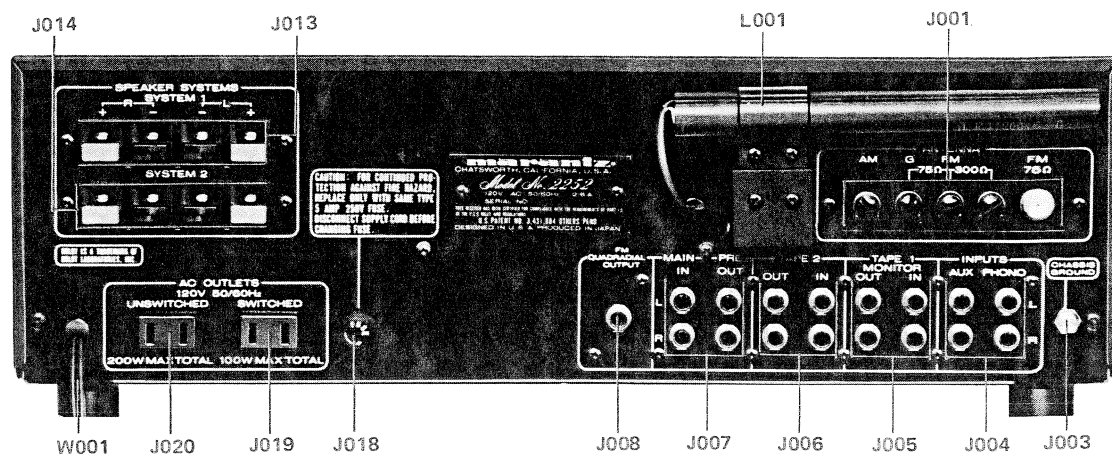
13. 1 FRONT PANEL ADJUSTMENT AND COMPONENT LOCATIONS



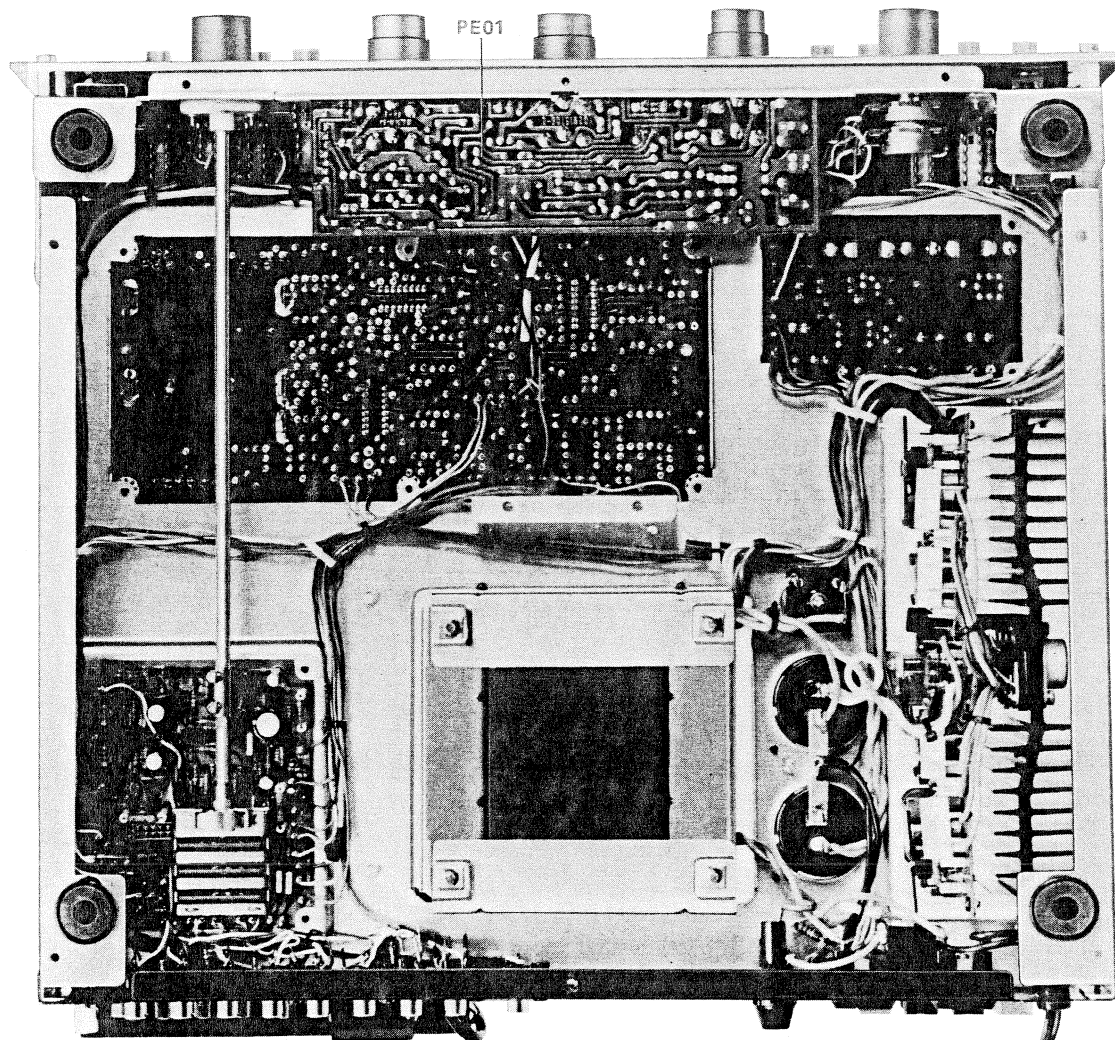
13. 2 MAIN CHASSIS COMPONENT LOCATIONS (TOP VIEW)



13.3 REAR PANEL ADJUSTMENT AND COMPONENT LOCATIONS



13.4 MAIN CHASSIS COMPONENT LOCATIONS (BOTTOM VIEW)

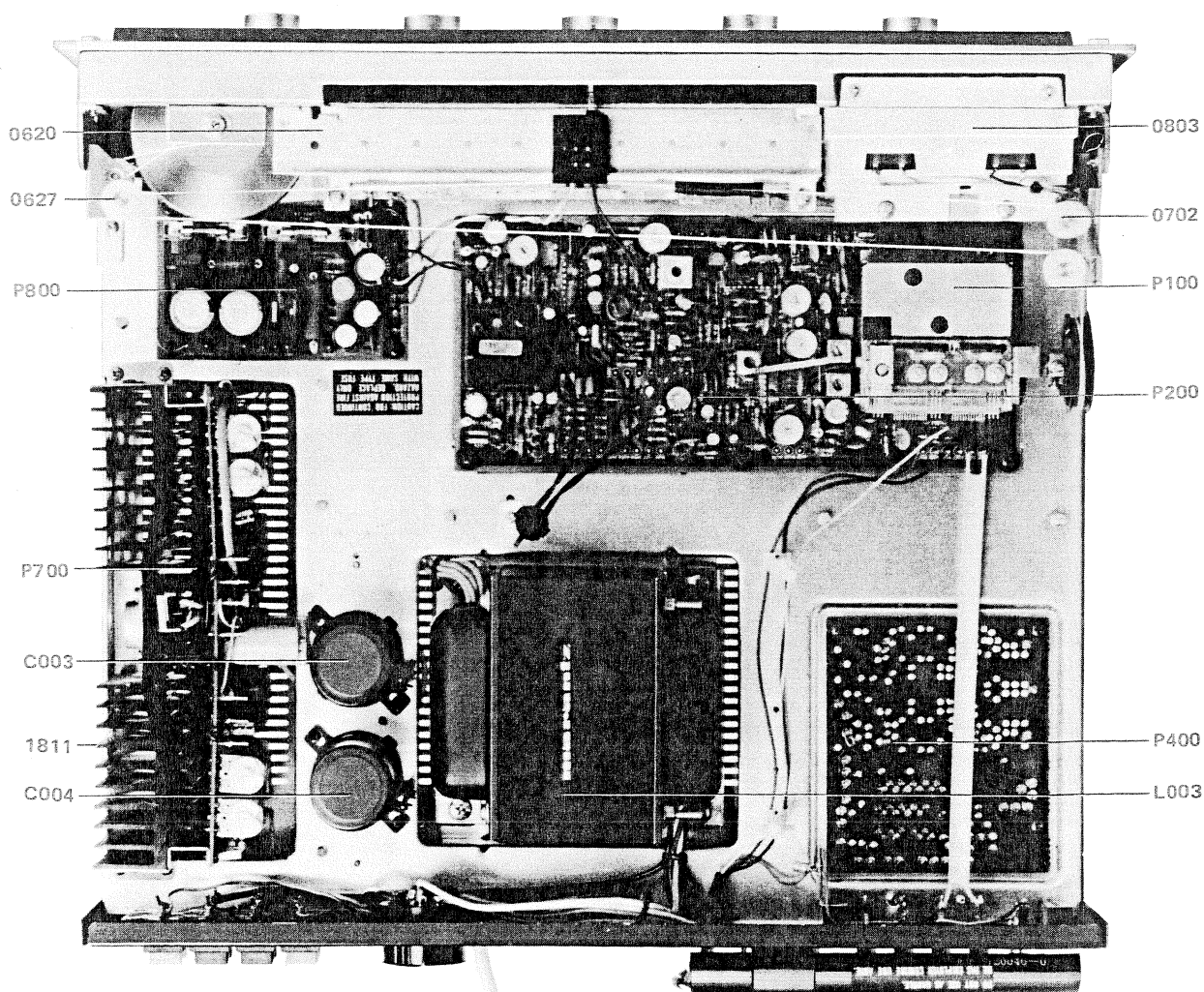


● EUROPEAN MODEL

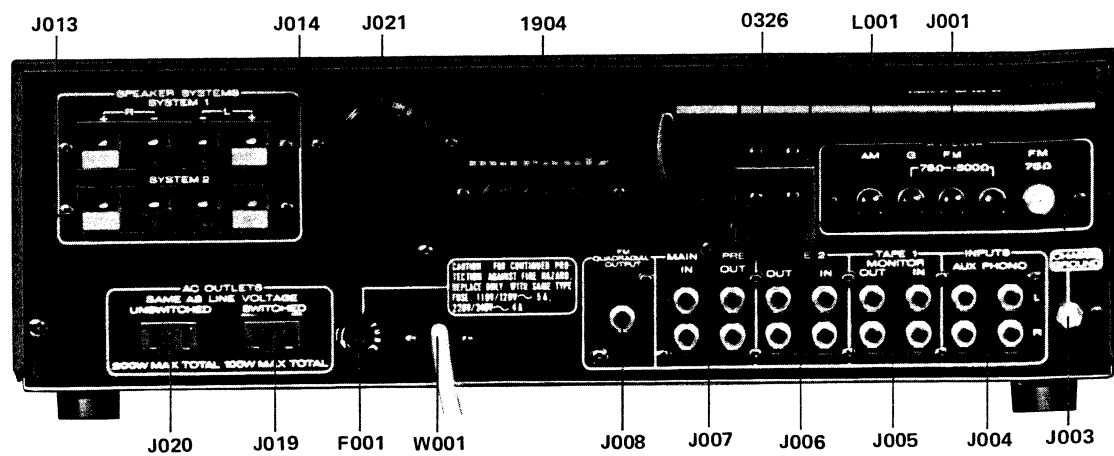
13. 5 FRONT PANEL ADJUSTMENT AND COMPONENT LOCATIONS



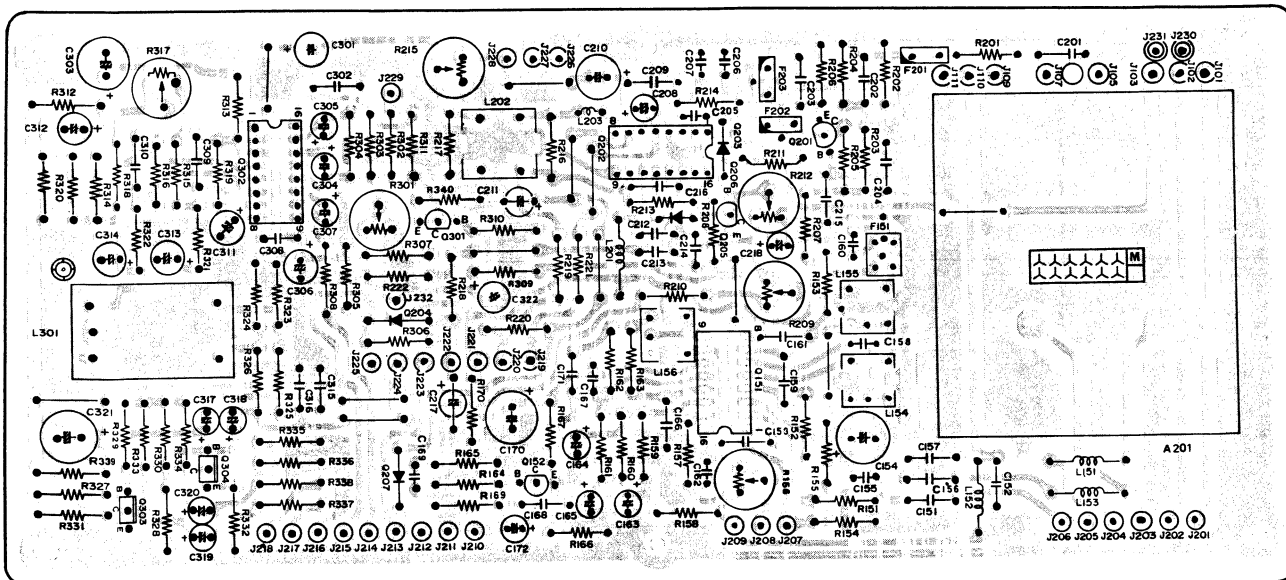
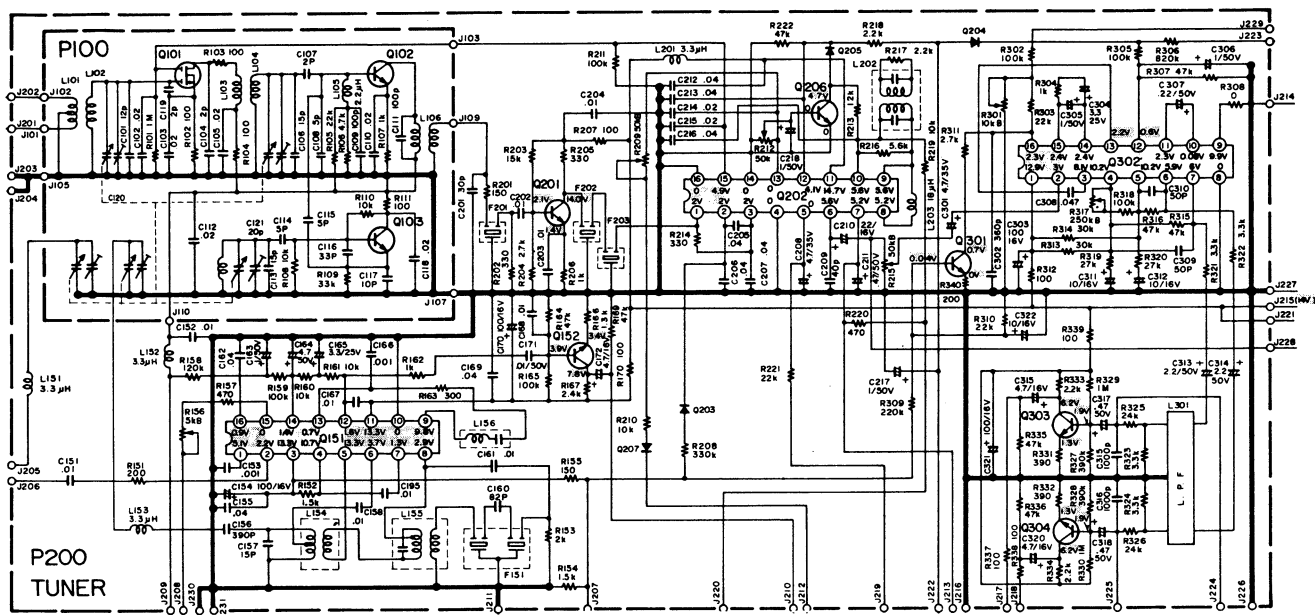
13. 6 MAIN CHASSIS COMPONENT LOCATIONS(TOP VIEW)



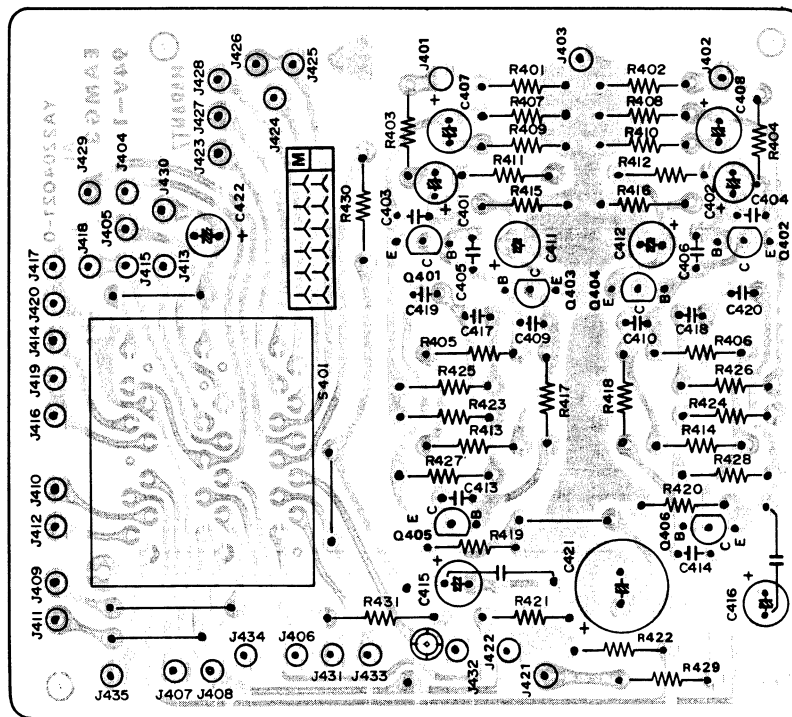
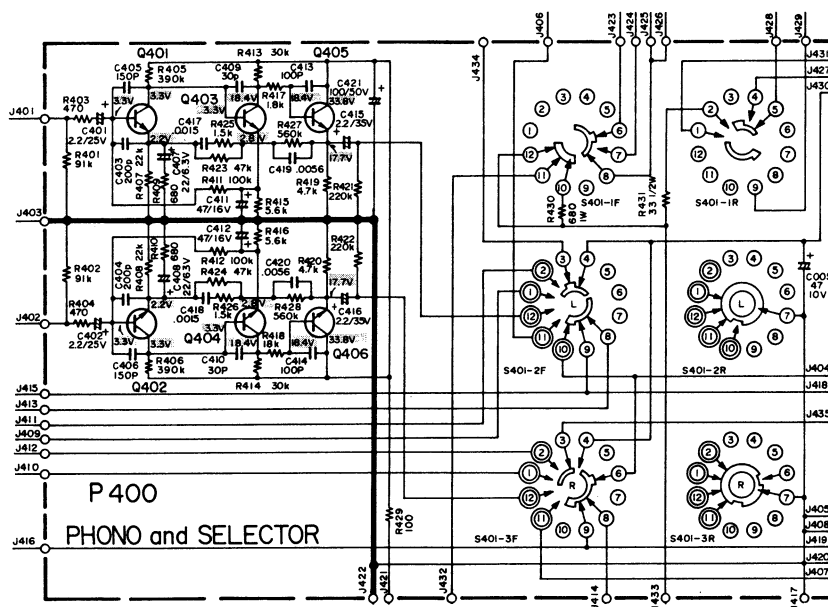
13. 7 REAR PANEL ADJUSTMENT AND COMPONENT LOCATIONS



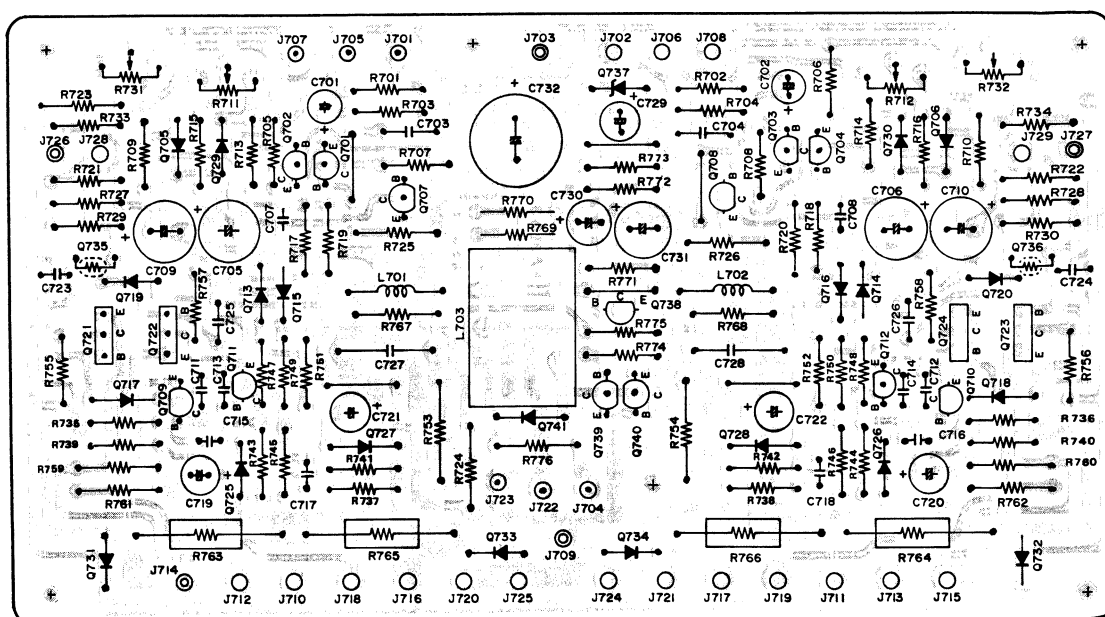
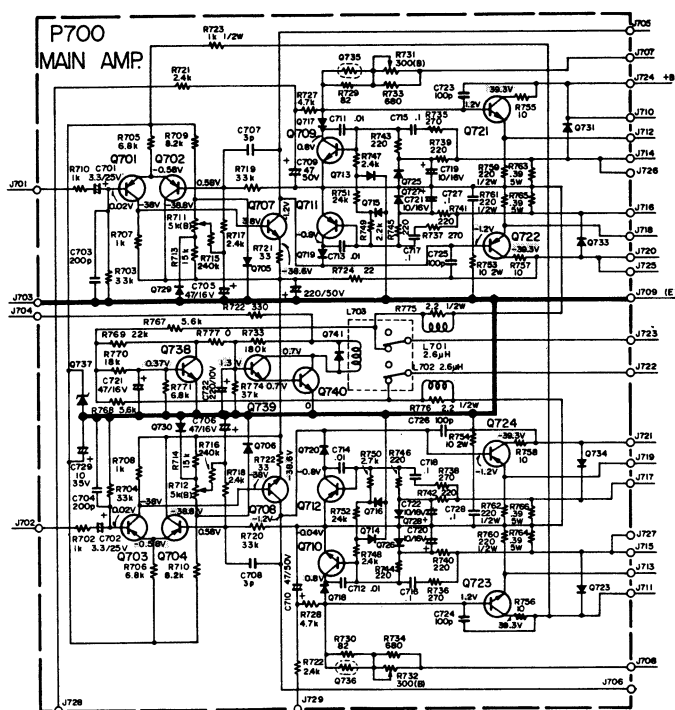
14. 2 TUNER ASSEMBLY(P200) SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS



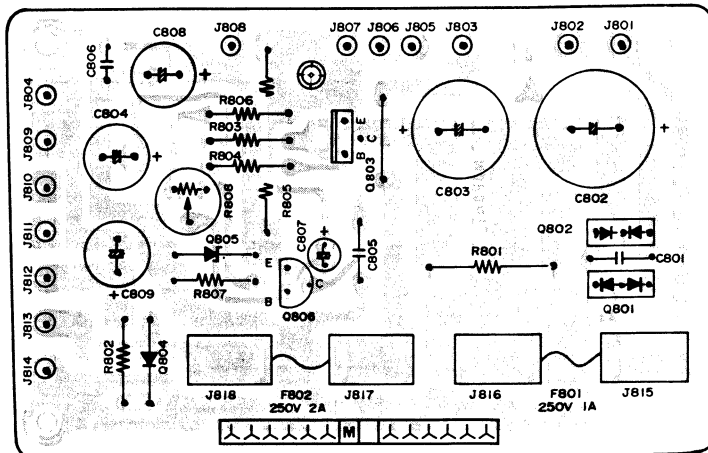
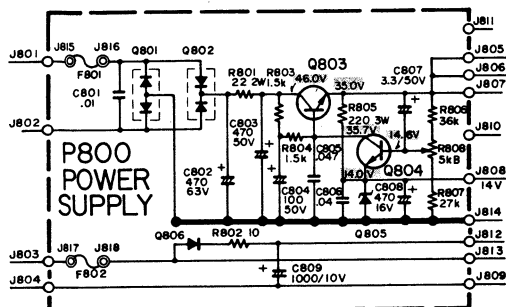
14.3 EQL AMP. ASSEMBLY(P400) SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS



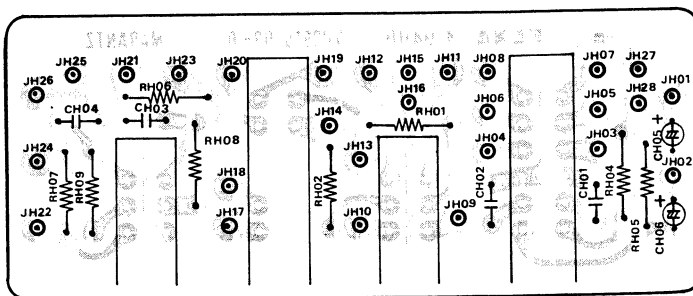
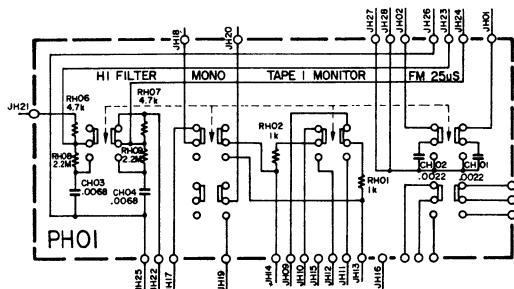
14. 4 MAIN AMP. ASSEMBLY(P700) SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS



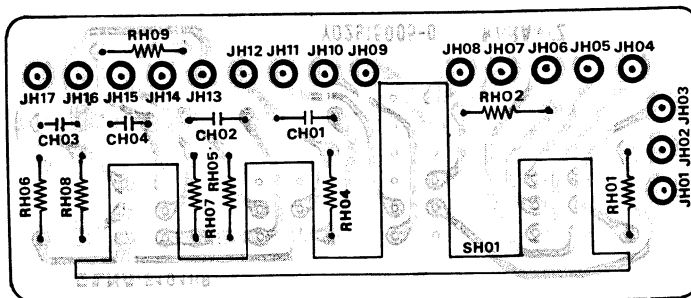
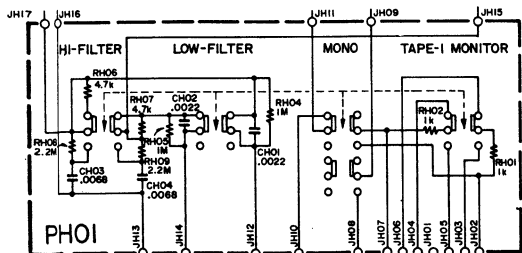
14. 5 POWER SUPPLY ASSEMBLY(P800) SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS



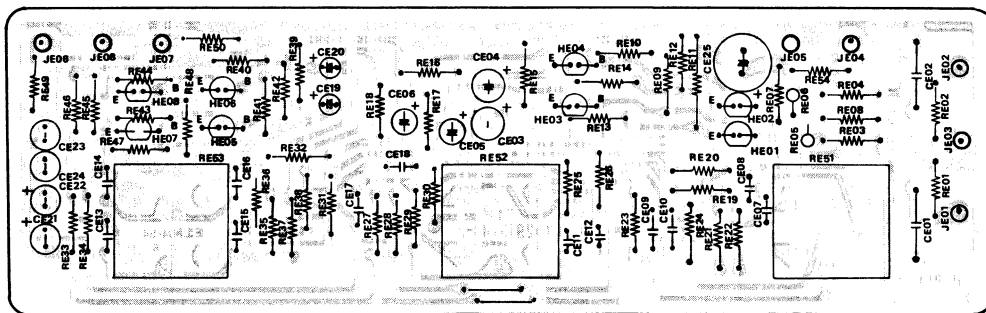
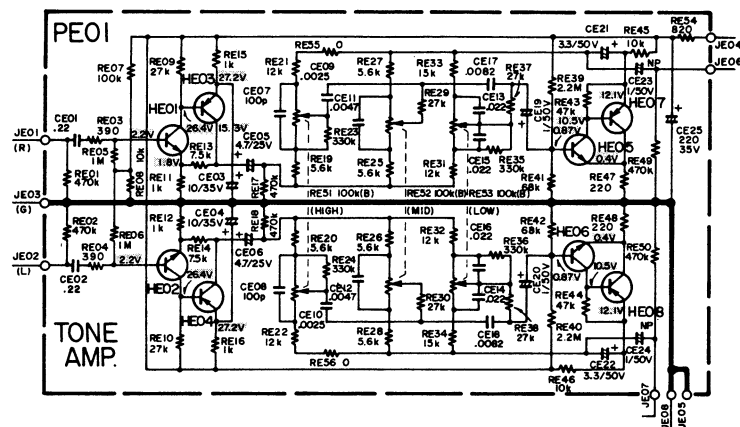
14. 6 FILTER DOLBY ASSEMBLY(PH01) SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS • for U.S.A. , Canada



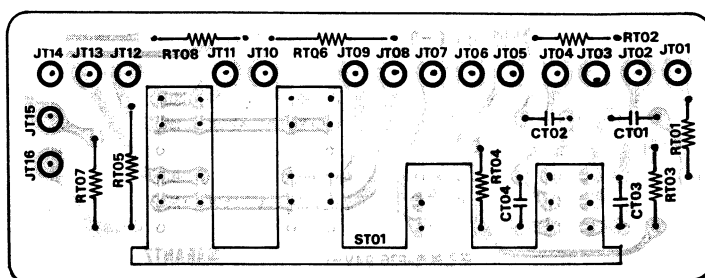
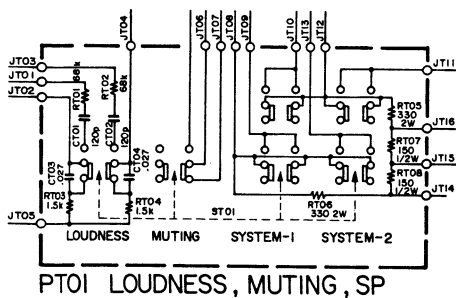
14. 7 LOW·HI FILTER ASSEMBLY(PH01) SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS • for Europe



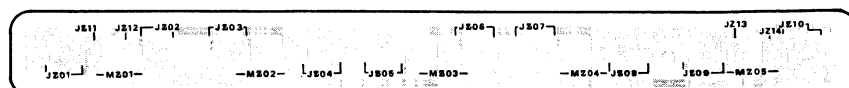
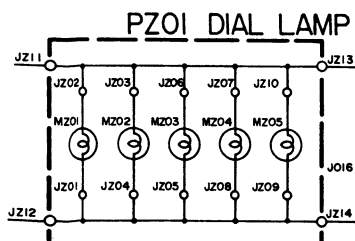
14.8 PRE-TONE AMP. ASSEMBLY (PE01) SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS



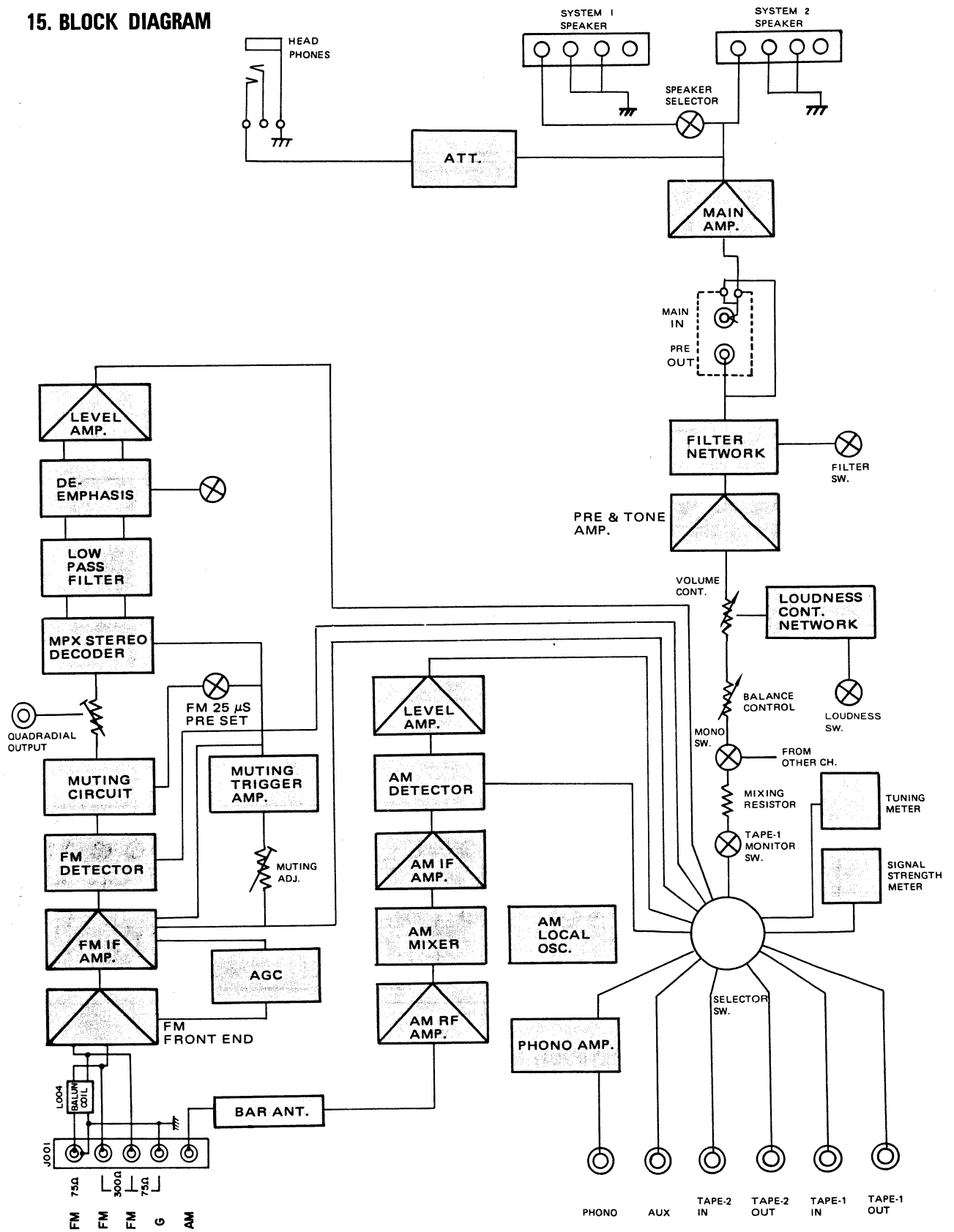
14.9 MAIN REMOTE ASSEMBLY (PT01) SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS



14.10 DIAL LAMP ASSEMBLY (PZ01) SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS

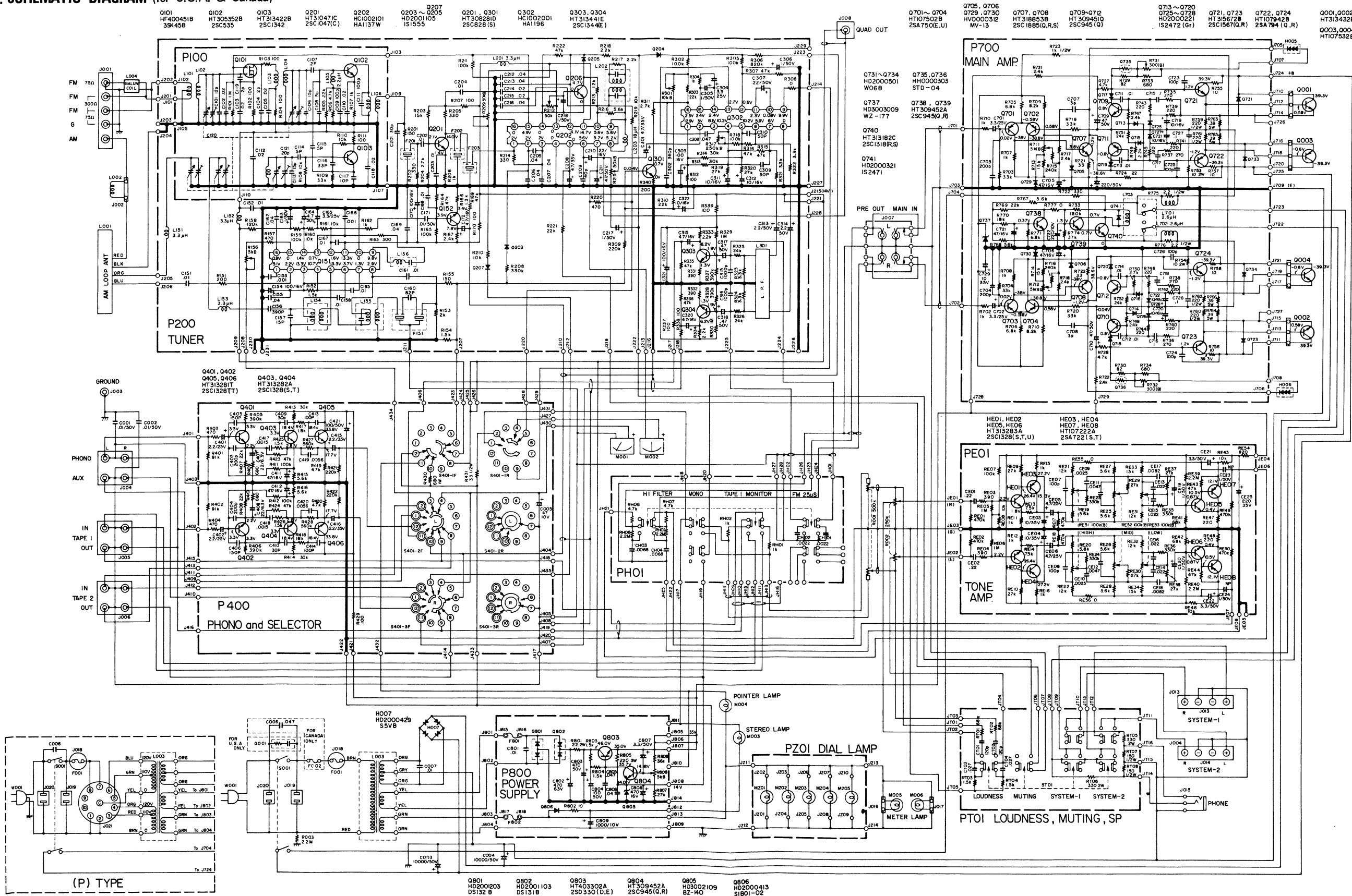


15. BLOCK DIAGRAM

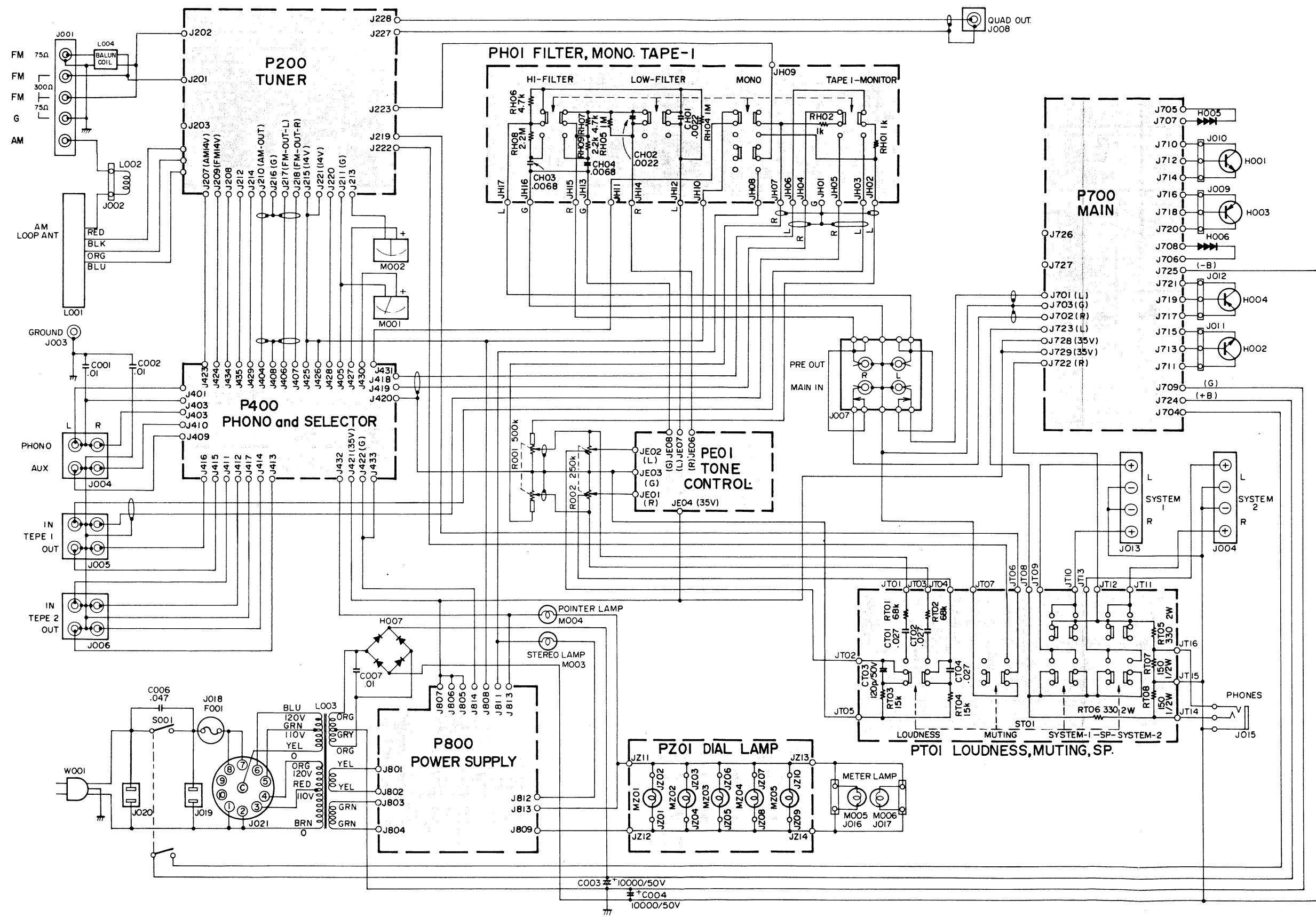


17. SCHEMATIC DIAGRAM (for U.S.A. & Canada)

Model 2252

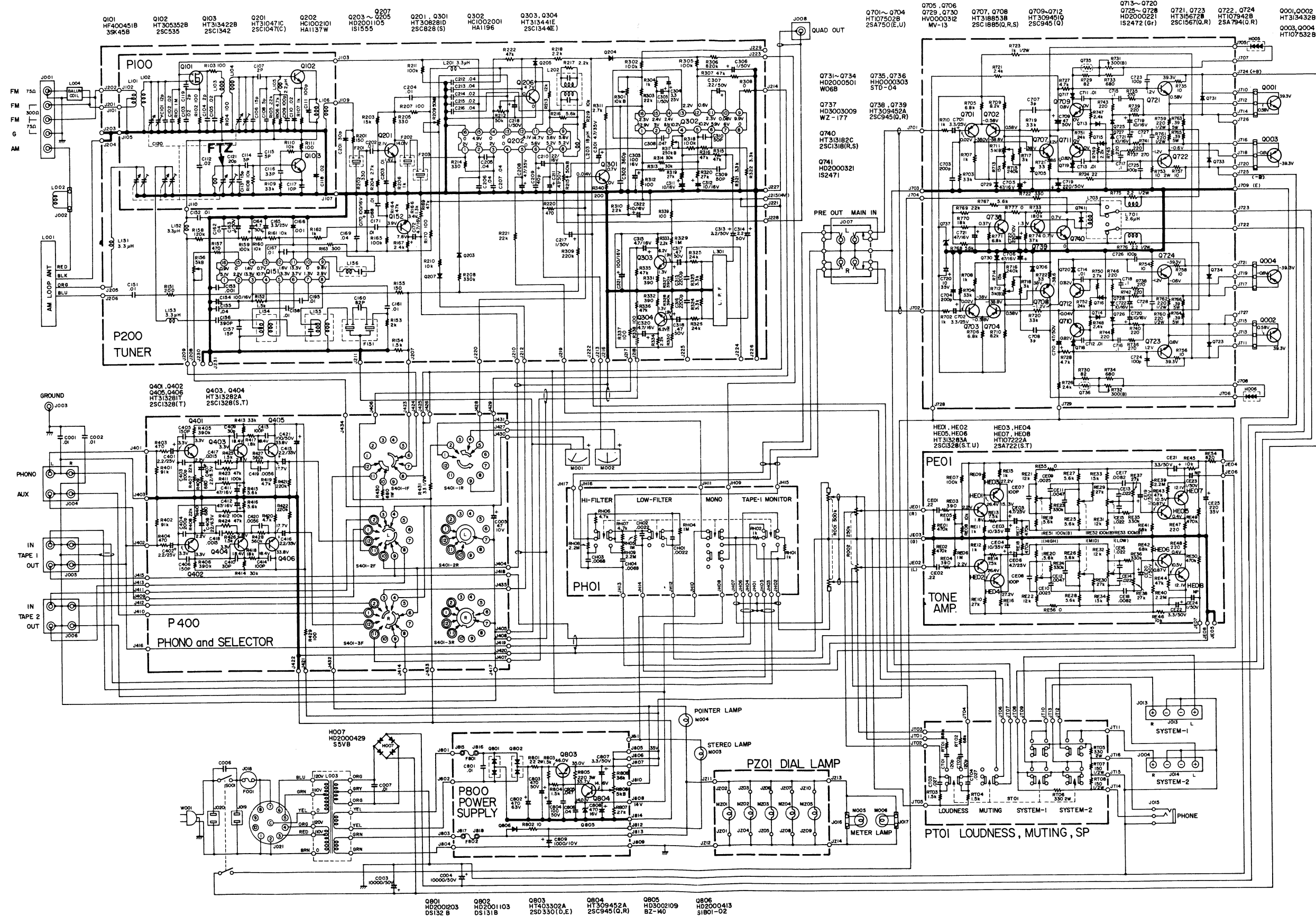


18. CONNECTION DIAGRAM (for Europe)

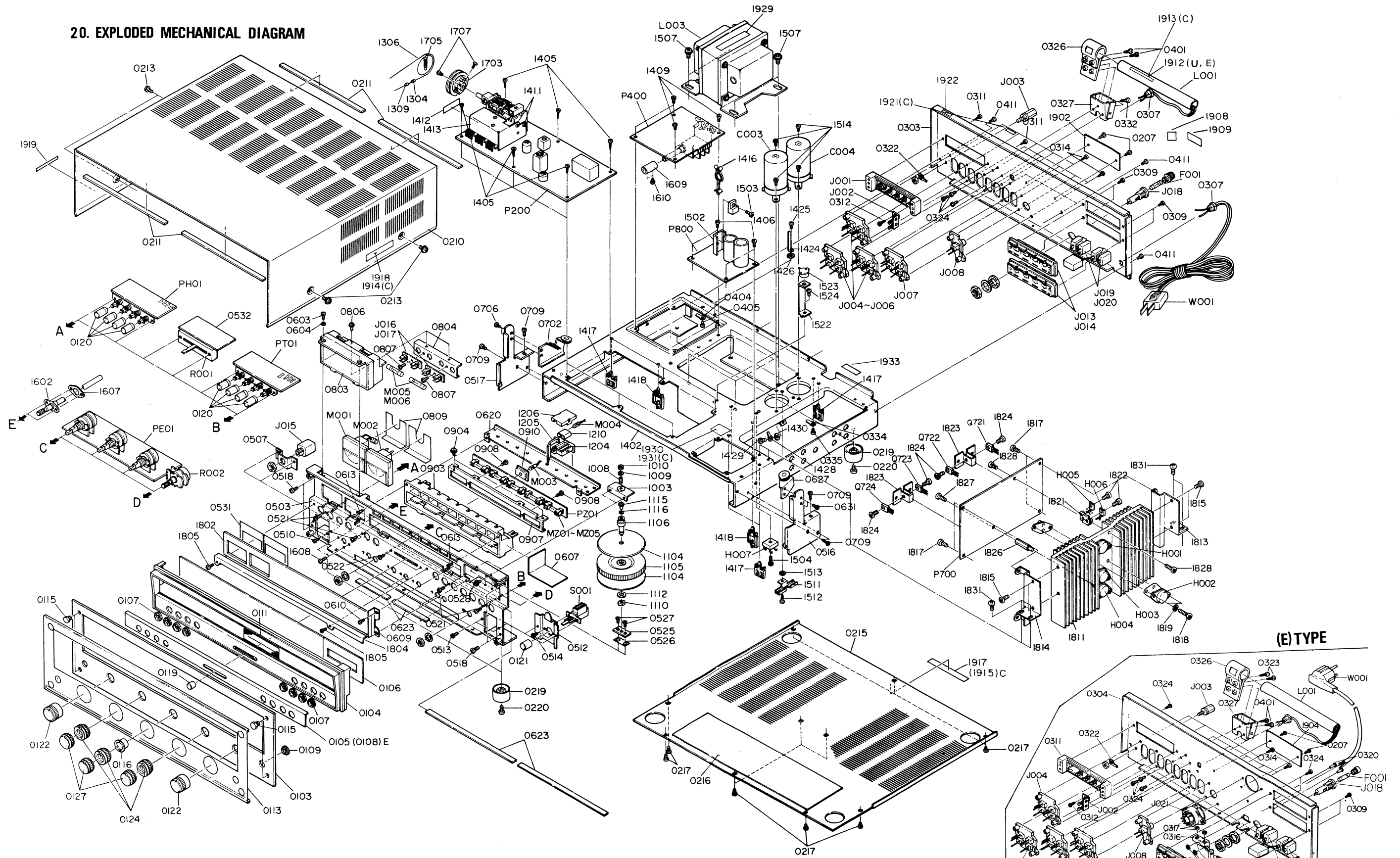


19. SCHEMATIC DIAGRAM (for Europe)

Model 2252



20. EXPLODED MECHANICAL DIAGRAM



21. PARTS LIST

- (U) for U.S.A.
- (C) for Canada
- (E) for Europe

- (U) for U.S.A.
- (C) for Canada
- (E) for Europe

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
A	1	1		2208063400	Front Panel Assembly
A1			1	2208063410	Front Panel Assembly
0103	1	1	1	2208063012	Escutcheon
0104	1	1	1	2221401012	Frame
0105	1	1		2204063023	Escutcheon
0106	1	1	1	2221158010	Window
0107	8	8	8	2221259012	Bushing
0108			1	2204063032	Escutcheon
0109	1	1	1	2886259010	Bushing
0111	1	1	1	2915107010	Sheet
0113	1	1	1	2915053010	Cover
B			1	2208160400	Rear Panel Assembly
0304			1	2208160220	Bracket
0316			1	2821259010	Bushing
0318			2	54050300R0	T.L. Washer
0320			2	55060305S0	T.R. Rivet
C	1	1	1	2204159400	Drum Assembly
1703	1	1	1	2204159010	Drum
1705	1	1	1	71101689L0	Spring
1707	2	2	2	51064019A9	Set Screw
D	1	1	1	2916257440	Lid Assembly, Upper
0210	1	1	1	2916257110	Lid
0211	4	4	4	2577118070	Spacer
E	1	1	1	2204257400	Lid Assembly, Lower
0215	1	1	1	2204257010	Lid
0216	1	1	1	2915120010	Insulator
F	1	1	1	2915103400	Pointer Assembly
1204	1	1	1	2915103012	Pointer
1205	1	1	1	2818103020	Pointer
1206	1	1	1	2915103020	Pointer
1210	1	1	1	2915267030	Heatsink
M004	1	1	1	IN10080300	Lamp
G	1	1	1	1202006420	Hook Assembly
1304	1	1	1	1202258010	Hook
1306	1	1	1	72071705D0	String
H	1	1	1	2853273400	Flywheel Assembly
1104	2	2	2	2577063022	Escutcheon
1105	1	1	1	2577273010	Flywheel
1106	1	1	1	2853112010	Shaft
1110	1	1	1	53110603E9	Hexagon Nut
1112	1	1	1	54020601E0	Flat Washer
0115	4	4	4	52017039J0	H. Head Bolt
0116	1	1	1	2916055010	Collar
0119	1	1	1	2221154110	Knob

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
0709	6	6	6	51280308B0	B.H. Tapped Screw, B3 x 8
0803	1	1	1	2886274012	Reflector
0804	1	1	1	2886271020	Holder
0806	2	2	2	51480306A9	B.H.M. Screw, B3 x 6
0807	2	2	2	51570305B0	P.H. Tapped Screw, P3 x 5
0809	2	2	2	2886107010	Sheet
0903	1	1	1	2871274110	Reflector
0904	2	2	2	51480306A9	B.H.M. Screw, B3 x 6
0907	1	1	1	2871271010	Holder
0908	2	2	2	51570305B0	P.H. Tapped Screw, B3 x 5
0910	1	1	1	2874259010	Bushing
1003	1	1	1	2853106500	Bearing, K
1008	1	1	1	51640410D9	Set Screw, C.P.
1009	1	1	1	54040402N0	Spring Washer
1010	1	1	1	53110403E9	Hexagon Nut
1115	1	1	1	2850112020	Shaft
1116	1	1	1	54040402N0	Spring Washer
1402	1	1	1	2204105014	Chassis
1405	6	6	6	51280308U0	B.H. Tapped Screw, B3 x 8
1406	4	4	4	51280306U0	B.H. Tapped Screw, B3 x 6
1407	4	4	4	51280306U0	B.H. Tapped Screw, B3 x 6
1409	1	1	1	2204005030	Clamper
1416	2	2	2	2204005040	Clamper
1417	4	4	4	2886005020	Clamper
1418	3	3	3	2886005050	Clamper
1424	1	1	1	1382005030	Clamper
1425	1	1	1	51280306B0	B.H. Tapped Screw, B3 x 6
1426	1	1	1	54050300R0	T.L. Washer, OR
1502	1	1	1	2204267020	Heatsink
1503	1	1	1	51100306E9	B.H.M. Screw, B3 x 6
1504	1	1	1	51570312B0	P.H.M. Screw, P3 x 12
1507	4	4	4	51490514A9	B.H.M. Screw, B5 x 14
1508	2	2	2	2916160070	Bracket
1511	1	1	1	2206160030	Bracket
1512	1	1	1	51280306B0	B.H. Tapped Screw, B3 x 6
1513	1	1	1	54050300R0	T.L. Washer, OR
1514	4	4	4	51280306U0	B.H. Tapped Screw, B3 x 6
1522	1	1	1	2927160050	Bracket
1523	1	1	1	2908259010	Bushing
1524	1	1	1	51570306B0	P.H. Tapped Screw, P3 x 6
1602	1	1	1	2204112502	Shaft, K
1607	1	1	1	2204005010	Clamper
1608	2	2	2	51100310A9	B.H.M. Screw, B3 x 10
1609	1	1	1	2896125010	Joint
1610	2	2	2	51064019A9	Set Screw
1802	1	1	1	2204302012	Dial
1804	1	1	1	2915269012	Protector
1805	2	2	2	51280306B0	B.H. Tapped Screw, B3 x 6
1811	1	1	1	2208267010	Heatsink
1813	1	1	1	2208104013	Retainer
1814	1	1	1	2208104023	Retainer
1815	4	4	4	51280306U0	B.H. Tapped Screw, B3 x 6
1817	4	4	4	51100306S9	B.H.M. Screw, B3 x 6
1818	8	8	8	51100314B9	B.H.M. Screw, B3 x 14
1819	8	8	8	54040302N0	Spring Washer
1821	1	1	1	2208005020	Clamper
1822	2	2	2	51100306A9	B.H.M. Screw, B3 x 6
1823	2	2	2	2912267022	Heatsink
1824	4	4	4	51100306S9	B.H.M. Screw, B3 x 6
1826	1	1	1	2208101010	Support
1827	1	1	1	51100306A9	B.H.M. Screw, B3 x 6
1828	2	2	2	51100306A9	B.H.M. Screw, B3 x 6
1831	4	4	4	51280306B0	B.H. Tapped Screw, B3 x 6
1902	1			2208265010	Indicator
1903			1	2208265020	Indicator
1904			1	2208265030	Indicator
1912	1	1	1	2506265060	Label, Do not use as Handle
1913			1	2911861170	Label, Do not use as handle.
1915			1	2911861110	Label, UL Caution
1914			1	2911861140	Label, Do not remove cover. See marking on bottom.
1917	1	1	1	2578861010	Label, UL Caution
1918	1	1	1	2932861010	Label, Do not remove cover. See marking on bottom.
1919	1			2818861010	Label, FTC
1921			1	9510911010	Label, LL
1922	1			9510911020	Label, UL Factory
1923	1			9511101020	Label, UL
1909			1	2911861010	Label
1908			1	2911861240	Label
1929	1	1	1	2886861010	Label, Marantz
1930	1		1	9510221010	Label, Fuse
1931			1	2911861160	Label, Fuse
1933			1	9510601050	Label, 5A, 250V
2005			1	2918813012	Envelope
2006			1	2818813010	Envelope
2011	1			2577851020	Instructions, Important
2012			1	2818851120	Instructions, Important
2016	1			2577854012	Guarantee Card
2017			1	9630000180	Guarantee Card
2021			1	9650000050	S. Station Card
2025	1			2818854022	Guarantee Card
2026			1	2818854040	Guarantee Card
2032	1			2818851040	Instructions, Packing
2033			1	2818851140	Instructions, Packing
2104	1			2208851010	Instructions, Set
2106			1	2208851310	Instructions, Set
2109			1	2886851100	Instructions, Flysheet
2116	1	1		2208856010	Schematic
2117			1	2208856020	Schematic
2202	1	1	1	2208801010	Packing Case, Inner
2203	1	1	1	2208801110	Packing Case, Outer
2211	2	2	2	2204809010	Cushion
2216	1	1	1	9014838380	Polyethylene Bag
2218	1	1	1	9013025010	Polyethylene Bag, Printed Matter
2219	1	1	1	9013025010	Polyethylene Bag, Accessories
2223	1	1	1	2864804010	Sleeve
2224			1	9560000042	Hang Tag
2226	1	1	1	2731821010	Silicagel
2228	1	1	1	2819056010	Buffer
2231	1	1	1	2918107130	Sheet
2302	4			9522815010	Serial No. Card
2303			4	9523015120	Serial No. Card
2304			4	9523015110	Serial No. Card
2314	2			9510901020	Label
2327	1	1	1	ZA02000070	Ext. Antenna
P200	1	1	1	YD22042010	P.W. Board
			1	ZZ22082110	P.W. Board Assembly
			1	ZZ22088010	P.W. Board Assembly
P208	8	8	8	2933118020	Spacer
P211	12	12	12	75061251P0	Jumper

- (U) for U.S.A.
- (C) for Canada
- (E) for Europe

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
P100	1	1	1	YD29910010	P100 FM FRONT END BOARD
	1	1	1	AV01202060	P.W. Board Assembly
R101	1	1	1	GD05105140	Resistor, 1MΩ ±5% ¼W
R102	1	1	1	GD05101140	Resistor, 100Ω ±5% ¼W
R103	1	1	1	GD05101140	Resistor, 100Ω ±5% ¼W
R104	1	1	1	GD05101140	Resistor, 100Ω ±5% ¼W
R105	1	1	1	GD05223140	Resistor, 22kΩ ±5% ¼W
R106	1	1	1	GD05472140	Resistor, 4.7kΩ ±5% ¼W
R107	1	1	1	GD05102140	Resistor, 1kΩ ±5% ¼W
R108	1	1	1	GD05103140	Resistor, 10kΩ ±5% ¼W
R109	1	1	1	GD05333140	Resistor, 33kΩ ±5% ¼W
R110	1	1	1	GD05103140	Resistor, 10kΩ ±5% ¼W
R111	1	1	1	GD05101140	Resistor, 100Ω ±5% ¼W
C101	1	1	1	DD16120020	Ceramic Cap., 12pF ±10%
C102	1	1	1	DK18203030	Ceramic Cap., 0.02μF ±80%
C103	1	1	1	DK18203030	Ceramic Cap., 0.02μF ±80%
C104	1	1	1	DD11020010	Ceramic Cap., 2pF ±0.5pF
C105	1	1	1	DK18203030	Ceramic Cap., 0.02pF ±80%
C106	1	1	1	DD16150040	Ceramic Cap., 15pF ±10%
C107	1	1	1	DD11020010	Ceramic Cap., 2pF ±0.5pF
C108	1	1	1	DD12050010	Ceramic Cap., 5pF ±1pF
C109	1	1	1	DD16101010	Ceramic Cap., 100pF ±10%
C110	1	1	1	DK18203030	Ceramic Cap., 0.02μF ±80%
C111	1	1	1	DD16101010	Ceramic Cap., 100pF ±10%
C112	1	1	1	DK18203030	Ceramic Cap., 0.02μF ±80%
C113	1	1	1	DD15150020	Ceramic Cap., 15pF ±5%
C114	1	1	1	DD10050030	Ceramic Cap., 5pF ±0.25pF
C115	1	1	1	DD12050010	Ceramic Cap., 5pF ±1pF
C116	1	1	1	DD16330020	Ceramic Cap., 33pF ±10%
C117	1	1	1	DD12100060	Ceramic Cap., 10pF ±1pF
C118	1	1	1	DK18203030	Ceramic Cap., 0.02μF ±80%
C119	1	1	1	DD11020010	Ceramic Cap., 2pF ±0.5pF
C120	1	1	1	CA32400080	Variable Cap.
C121	1	1	1	CT14200010	Trimming Cap.
L101	1	1	1	LL24700050	Ant. Coil
L102	1	1	1	LK12700040	Ant. Coil
L103	1	1	1	LL22700020	RF Coil
L104	1	1	1	LK11700040	RF Coil
L105	1	1	1	LC12220010	Choke Coil, 2.2μH
L106	1	1	1	LI10239010	IFT
L107	1	1	1	LK12500040	Osc. Coil
Q101	1	1	1	HF40045180	FET, 3SK45B
Q102	1	1	1	HT30535280	Transistor, 2SC535
Q103	1	1	1	HT31342280	Transistor, 2SC1342
2121	1	1	1	2991109010	Shield
2122	1	1	1	2991053110	Cover
J101	1	1	1	YP10001510	Plug
J102	1	1	1	YP10001510	Plug
J103	1	1	1	YP10001510	Plug
J105	1	1	1	YP10001510	Plug
J107	1	1	1	YP10001510	Plug
J109	1	1	1	YP10001510	Plug
J110	1	1	1	YP10001510	Plug
R151	1	1	1	RT05201140	Resistor, 200Ω ±5% ¼W

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
R152	1	1	1	RT05152140	Resistor, 1.5kΩ ±5% ¼W
R153	1	1	1	RT05202140	Resistor, 2kΩ ±5% ¼W
R154	1	1	1	RT05152140	Resistor, 1.5kΩ ±5% ¼W
R155	1	1	1	RT05151140	Resistor, 150Ω ±5% ¼W
R156	1	1	1	RA05020200	Trimming Resistor, 5kΩ (B)
R157	1	1	1	RT05471140	Resistor, 470Ω ±5% ¼W
R158	1	1	1	RT05124140	Resistor, 120kΩ ±5% ¼W
R159	1	1	1	RT05104140	Resistor, 100kΩ ±5% ¼W
R160	1	1	1	RT05103140	Resistor, 10kΩ ±5% ¼W
R161	1	1	1	RT05103140	Resistor, 10kΩ ±5% ¼W
R162	1	1	1	RT05102140	Resistor, 1kΩ ±5% ¼W
R163	1	1	1	RT05301140	Resistor, 300Ω ±5% ¼W
R164	1	1	1	RT05473140	Resistor, 47kΩ ±5% ¼W
R165	1	1	1	RT05104140	Resistor, 100kΩ ±5% ¼W
R166	1	1	1	RT05132140	Resistor, 1.3kΩ ±5% ¼W
R167	1	1	1	RT05242140	Resistor, 2.4kΩ ±5% ¼W
R169	1	1	1	RT05473140	Resistor, 47kΩ ±5% ¼W
R170	1	1	1	RT05101140	Resistor, 100Ω ±5% ¼W
R201	1	1	1	RT05151140	Resistor, 150Ω ±5% ¼W
R202	1	1	1	RT05331140	Resistor, 330Ω ±5% ¼W
R203	1	1	1	RT05153140	Resistor, 15kΩ ±5% ¼W
R204	1	1	1	RT05272140	Resistor, 2.7kΩ ±5% ¼W
R205	1	1	1	RT05331140	Resistor, 330Ω ±5% ¼W
R206	1	1	1	RT05102140	Resistor, 1kΩ ±5% ¼W
R207	1	1	1	RT05101140	Resistor, 100Ω ±5% ¼W
R208	1	1	1	RT05334140	Resistor, 330kΩ ±5% ¼W
R209	1	1	1	RA05030120	Trimming Resistor, 50kΩ (B)
R210	1	1	1	RT05103140	Resistor, 10kΩ ±5% ¼W
R211	1	1	1	RT05104140	Resistor, 100kΩ ±5% ¼W
R212	1	1	1	RA01030250	Trimming Resistor, 10kΩ (B)
R213	1	1	1	RT05123140	Resistor, 12kΩ ±5% ¼W
R214	1	1	1	RT05331140	Resistor, 330Ω ±5% ¼W
R215	1	1	1	RA05030120	Trimming Resistor, 50kΩ (B)
R216	1	1	1	RT05562140	Resistor, 5.6kΩ ±5% ¼W
R217	1	1	1	RT05222140	Resistor, 2.2kΩ ±5% ¼W
R218	1	1	1	RT05222140	Resistor, 2.2kΩ ±5% ¼W
R219	1	1	1	RT05103140	Resistor, 10kΩ ±5% ¼W
R220	1	1	1	RT05471140	Resistor, 470Ω ±5% ¼W
R221	1	1	1	RT05223140	Resistor, 22kΩ ±5% ¼W
R222	1	1	1	RT05473140	Resistor, 47kΩ ±5% ¼W
R301	1	1	1	RA01030310	Trimming Resistor, 10kΩ (B)
R302	1	1	1	RT05104140	Resistor, 100kΩ ±5% ¼W
R303	1	1	1	RT05223140	Resistor, 22kΩ ±5% ¼W
R304	1	1	1	RT05102140	Resistor, 1kΩ ±5% ¼W
R305	1	1	1	RT05104140	Resistor, 100kΩ ±5% ¼W
R306	1	1	1	RT05824140	Resistor, 820kΩ ±5% ¼W
R307	1	1	1	RT05473140	Resistor, 47kΩ ±5% ¼W
R308	1	1	1	RC00000120	Resistor, 0Ω
R309	1	1	1	RT05224140	Resistor, 220kΩ ±5% ¼W
R310	1	1	1	RT05223140	Resistor, 22kΩ ±5% ¼W
R311	1	1	1	RT05272140	Resistor, 2.7kΩ ±5% ¼W
R312	1	1	1	RT05101140	Resistor, 100Ω ±5% ¼W
R313	1	1	1	RT05303140	Resistor, 30kΩ ±5% ¼W
R314	1	1	1	RT05303140	Resistor, 30kΩ ±5% ¼W
R315	1	1	1	RT05473140	Resistor, 47kΩ ±5% ¼W
R316	1	1	1	RT05473140	Resistor, 47kΩ ±5% ¼W
R317	1	1	1	RA02540010	Trimming Resistor, 250kΩ (B)

- (U) for U.S.A.
- (C) for Canada
- (E) for Europe

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
R318	1	1	1	RT05104140	Resistor, 100kΩ ±5% ¼W
R319	1	1	1	RT05273140	Resistor, 27kΩ ±5% ¼W
R320	1	1	1	RT05273140	Resistor, 27kΩ ±5% ¼W
R321	1	1	1	RT05332140	Resistor, 3.3kΩ ±5% ¼W
R322	1	1	1	RT05332140	Resistor, 3.3kΩ ±5% ¼W
R323	1	1	1	RT05332140	Resistor, 3.3kΩ ±5% ¼W
R324	1	1	1	RT05332140	Resistor, 3.3kΩ ±5% ¼W
R325	1	1	1	RT05243140	Resistor, 24kΩ ±5% ¼W
R326	1	1	1	RT05243140	Resistor, 24kΩ ±5% ¼W
R327	1	1	1	RT05394140	Resistor, 390kΩ ±5% ¼W
R328	1	1	1	RT05394140	Resistor, 390kΩ ±5% ¼W
R329	1	1	1	RT05105141	Resistor, 1MΩ ±5% ¼W
R330	1	1	1	RT05105141	Resistor, 1MΩ ±5% ¼W
R331	1	1	1	RT05391140	Resistor, 390Ω ±5% ¼W
R332	1	1	1	RT05391141	Resistor, 390Ω ±5% ¼W
R333	1	1	1	RT05222141	Resistor, 2.2kΩ ±5% ¼W
R334	1	1	1	RT05222141	Resistor, 2.2kΩ ±5% ¼W
R335	1	1	1	RT05473141	Resistor, 47kΩ ±5% ¼W
R336	1	1	1	RT05473141	Resistor, 47kΩ ±5% ¼W
R337	1	1	1	RT05101141	Resistor, 100Ω ±5% ¼W
R338	1	1	1	RT05101141	Resistor, 100Ω ±5% ¼W
R339	1	1	1	RT05101140	Resistor, 100Ω ±5% ¼W
R340	1	1	1	RT05201141	Resistor, 200Ω ±5% ¼W
C151	1	1	1	DK17103040	Ceramic Cap., 0.01μF ±20%
C152	1	1	1	DK17103040	Ceramic Cap., 0.01μF ±20%
C153	1	1	1	DK17102010	Ceramic Cap., 0.001μF ±20%
C154	1	1	1	EA10701690	Electrolytic Cap., 100μF 16V
C155	1	1	1	DK18403020	Ceramic Cap., 0.04μF ±80%
C156	1	1	1	DF65391010	Film Cap., 390pF ±5%
C157	1	1	1	DD16150070	Ceramic Cap., 15pF ±10%
C158	1	1	1	DK17103040	Ceramic Cap., 0.01μF ±20%
C159	1	1	1	DK17103010	Ceramic Cap., 0.01μF ±20%
C160	1	1	1	DD15820010	Ceramic Cap., 82pF ±5%
C161	1	1	1	DK17103040	Ceramic Cap., 0.01μF ±20%
C162	1	1	1	DK18403020	Ceramic Cap., 0.04μF ±80%
C163	1	1	1	EA10505090	Electrolytic Cap., 1μF 50V
C164	1	1	1	EA47503590	Electrolytic Cap., 4.7μF 35V
C165	1	1	1	EA33502590	Electrolytic Cap., 3.3μF 25V
C166	1	1	1	DK17102010	Ceramic Cap., 0.001μF ±20%
C167	1	1	1	DK17103040	Ceramic Cap., 0.01μF ±20%
C168	1	1	1	DK17103010	Ceramic Cap., 0.01μF ±20%
C169	1	1	1	DK18403020	Ceramic Cap., 0.04μF ±80%
C170	1	1	1	EA10701690	Electrolytic Cap., 100μF 16V
C171	1	1	1	DF16104010	Film Cap., 0.1μF 50V
C172	1	1	1	EV47501660	Electrolytic Cap., 4.7μF 16V
C201	1	1	1	DD15300010	Ceramic Cap., 30pF ±5%
C202	1	1	1	DK17103040	Ceramic Cap., 0.01μF ±20%
C203	1	1	1	DK17103040	Ceramic Cap., 0.01μF ±20%
C204	1	1	1	DK17103040	Ceramic Cap., 0.01μF ±20%
C205	1	1	1	DK18403020	Ceramic Cap., 0.04μF ±80%
C206	1	1	1	DK18403020	Ceramic Cap., 0.04μF ±80%
C207	1	1	1	DK18403020	Ceramic Cap., 0.04μF ±80%
C208	1	1	1	EA47503590	Electrolytic Cap., 4.7μF 35V
C209	1	1	1	DD15400040	Ceramic Cap., 40pF ±5%
C210	1	1	1	EA22601690	Electrolytic Cap., 22μF 16V
C211	1	1	1	EA47405010	Electrolytic Cap., 0.47μF 50V
C212	1	1	1	DK18403010	Ceramic Cap., 0.04μF ±100%
C213	1	1	1	DK18403010	Ceramic Cap., 0.04μF ±100%
C214	1	1	1	DK18203020	Ceramic Cap., 0.02μF ±100%
C215	1	1	1	DK18203020	Ceramic Cap., 0.02μF ±100%
C216	1	1	1	DK18403010	Ceramic Cap., 0.04μF ±100%
C217	1	1	1	EA10505090	Electrolytic Cap., 1μF 50V
C218	1	1	1	EA10505090	Electrolytic Cap., 1μF 50V
C301	1	1	1	EA47503590	Electrolytic Cap., 4.7μF 35V
C302	1	1	1	DF65361500	Film Cap., 360pF ±5%
C303	1	1	1	EA10701690	Electrolytic Cap., 100μF 16V
C304	1	1	1	EE33502510	Electrolytic Cap., 3.3μF 25V
C305	1	1	1	EE10505010	Electrolytic Cap., 1μF 50V
C306	1	1	1	EA10505090	Electrolytic Cap., 1μF 50V
C307	1	1	1	EQ22405010	Electrolytic Cap., 0.22μF 50V
C308	1	1	1	DF17473010	Film Cap., 0.047μF
C309	1	1	1	DD15500050	Ceramic Cap., 50pF ±5%
C310	1	1	1	DD15500050	Ceramic Cap., 50pF ±5%
C311	1	1	1	EA10601690	Electrolytic Cap., 10μF 16V
C312	1	1	1	EA10601690	Electrolytic Cap., 10μF 16V
C313	1	1	1	EA22505090	Electrolytic Cap., 2.2μF 50V
C314	1	1	1	EA22505090	Electrolytic Cap., 2.2μF 50V
C315	1	1	1	DF15102050	Film Cap., 1000pF ±5%
C316	1	1	1	DF15102050	Film Cap., 1000pF ±5%
C317	1	1	1	EA47405010	Electrolytic Cap., 0.47μF 50V
C318	1	1	1	EA47405010	Electrolytic Cap., 0.47μF 50V
C319	1	1	1	EV47501660	Electrolytic Cap., 4.7μF 16V
C320	1	1	1	EV47501660	Electrolytic Cap., 4.7μF 16V
C321	1	1	1	EA10701690	Electrolytic Cap., 100μF 16V
C322	1	1	1	EE10601620	Electrolytic Cap., 10μF 16V
C315	1	1	1	DF15222050	Film Cap., 0.0022μF ±5%
C316	1	1	1	DF15222050	Film Cap., 0.0022μF ±5%
L151	1	1	1	LC13320020	Choke Coil, 3.3μH
L152	1	1	1	LC13320020	Choke Coil, 3.3μH
L153	1	1	1	LC13320020	Choke Coil, 3.3μH
L154	1	1	1	LO10010480	AM Osc.
L155	1	1	1	LI10015010	AM IFT
L156	1	1	1	LI10015060	AM IFT
L201	1	1	1	LC13320020	Choke Coil, 3.3μH
L202	1	1	1	LI14019010	FM IFT
L203	1	1	1	LC11830010	Choke Coil, 18μH
L301	1	1	1	LS35025010	L.P.F. FB3605
Q151	1	1	1	HC10019010	IC, HA1197
Q152	1	1	1	HT313272A0	Transistor, 2SC1327 S, T
Q201	1	1	1	HT310471C0	Transistor, 2SC1047 C
Q202	1	1	1	HC10021010	IC, HA1137W
Q203	1	1	1	HD20011050	Diode, 1S1555
Q204	1	1	1	HD20011050	Diode, 1S1555
Q205	1	1	1	HD20011050	Diode, 1S1555
Q206	1	1	1	HT308281D0	Transistor, 2SC828 S
Q207	1	1	1	HD20011050	Diode, 1S1555
Q301	1	1	1	HT308281D0	Transistor, 2SC828 S
Q302	1	1	1	HC10020010	IC, HA1196
Q303	1	1	1	HT313441E0	Transistor, 2SC1344 E
Q304	1	1	1	HT313441E0	Transistor, 2SC1344 E
F151	1	1	1	FF10045160	Ceramic Filter, AM
F201	1	1	1	FF11070050	Ceramic Filter, FM
F202	1	1	1	FF11070050	Ceramic Filter, FM
F203	1	1	1	FF11070050	Ceramic Filter, FM

- (U) for U.S.A.
- (C) for Canada
- (E) for Europe

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
J201 J232	32	32	32	YP10001130	Plug
P400	1	1	1	YA22040210	P400 EQL. AMP. BOARD P.W. Board
	1	1	1	ZZ22080210	P.W. Board Assembly
P408	6	6	6	2933118020	Spacer
R401	1	1	1	RT05913140	Resistor, 91kΩ ±5% ¼W
R402	1	1	1	RT05913140	Resistor, 91kΩ ±5% ¼W
R403	1	1	1	RT05471140	Resistor, 470Ω ±5% ¼W
R404	1	1	1	RT05471140	Resistor, 470Ω ±5% ¼W
R405	1	1	1	RN05394140	Resistor, 390kΩ ±5% ¼W
R406	1	1	1	RN05394140	Resistor, 390kΩ ±5% ¼W
R407	1	1	1	RT05223140	Resistor, 22kΩ ±5% ¼W
R408	1	1	1	RT05223140	Resistor, 22kΩ ±5% ¼W
R409	1	1	1	RT05681140	Resistor, 680Ω ±5% ¼W
R410	1	1	1	RT05681140	Resistor, 680Ω ±5% ¼W
R411	1	1	1	RN05104140	Resistor, 100kΩ ±5% ¼W
R412	1	1	1	RN05104140	Resistor, 100kΩ ±5% ¼W
R413	1	1	1	RT05303140	Resistor, 30kΩ ±5% ¼W
R414	1	1	1	RT05303140	Resistor, 30kΩ ±5% ¼W
R415	1	1	1	RT05562140	Resistor, 5.6kΩ ±5% ¼W
R416	1	1	1	RT05562140	Resistor, 5.6kΩ ±5% ¼W
R417	1	1	1	RT05182140	Resistor, 1.8kΩ ±5% ¼W
R418	1	1	1	RT05182140	Resistor, 1.8kΩ ±5% ¼W
R419	1	1	1	RT05472140	Resistor, 4.7kΩ ±5% ¼W
R420	1	1	1	RT05472140	Resistor, 4.7kΩ ±5% ¼W
R421	1	1	1	RT05224140	Resistor, 220kΩ ±5% ¼W
R422	1	1	1	RT05224140	Resistor, 220kΩ ±5% ¼W
R423	1	1	1	RT05473140	Resistor, 47kΩ ±5% ¼W
R424	1	1	1	RT05473140	Resistor, 47kΩ ±5% ¼W
R425	1	1	1	RT05152140	Resistor, 1.5kΩ ±5% ¼W
R426	1	1	1	RT05152140	Resistor, 1.5kΩ ±5% ¼W
R427	1	1	1	RN05564140	Resistor, 560kΩ ±5% ¼W
R428	1	1	1	RN05564140	Resistor, 560kΩ ±5% ¼W
R429	1	1	1	RT05101140	Resistor, 100Ω ±5% ¼W
R430	1	1	1	GJ05681010	Resistor, 680Ω ±5% 1W
R431	1	1	1	GF05330120	Resistor, 33Ω ±5% ¼W
R400	1	1	1	RC00000120	Resistor, 0Ω
C401	1	1	1	EV22502560	Electrolytic Cap., 2.2μF ±20% 25V
C402	1	1	1	EV22502560	Electrolytic Cap., 2.2μF ±20% 25V
C403	1	1	1	DD15201010	Ceramic Cap., 200pF ±10% 50V
C404	1	1	1	DD15201010	Ceramic Cap., 200pF ±10% 50V
C405	1	1	1	DD16151010	Ceramic Cap., 150pF ±10% 50V
C406	1	1	1	DD16151010	Ceramic Cap., 150pF ±10% 50V
C407	1	1	1	EV22600660	Electrolytic Cap., 22μF ±20% 6.3V
C408	1	1	1	EV22600660	Electrolytic Cap., 22μF ±20% 6.3V
C409	1	1	1	DD16300010	Ceramic Cap., 30pF ±10% 50V
C410	1	1	1	DD16300010	Ceramic Cap., 30pF ±10% 50V
C411	1	1	1	EA47601690	Electrolytic Cap., 47μF ±10% 16V
C412	1	1	1	EA47601690	Electrolytic Cap., 47μF ±10% 16V
C413	1	1	1	DD16101010	Ceramic Cap., 100pF ±10% 50V
C414	1	1	1	DD16101010	Ceramic Cap., 100pF ±10% 50V
C415	1	1	1	EE22503510	Electrolytic Cap., 2.2μF ±20% 35V
C416	1	1	1	EE22503510	Electrolytic Cap., 2.2μF ±20% 35V
C417	1	1	1	DF15152010	Film Cap., 0.0015μF ±20% 50V

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
C418	1	1	1	DF15152010	Film Cap., 0.0015μF ±20% 50V
C419	1	1	1	DF15562010	Film Cap., 0.0056μF ±50% 50V
C420	1	1	1	DF15562010	Film Cap., 0.0056μF ±50% 50V
C421	1	1	1	EA10705090	Electrolytic Cap., 100μF ±10% 50V
C422	1	1	1	EA47601090	Electrolytic Cap., 47μF ±10% 10V
P411	4	4	4	75061251P0	Jumper,
Q401	1	1	1	HT313281T0	Transistor, 2SC1328 T
Q402	1	1	1	HT313281T0	Transistor, 2SC1328 T
Q403	1	1	1	HT313282A0	Transistor, 2SC1328 S, T
Q404	1	1	1	HT313282A0	Transistor, 2SC1328 S, T
Q405	1	1	1	HT313281T0	Transistor, 2SC1328 T
Q406	1	1	1	HT313281T0	Transistor, 2SC1328 T
S401	1	1	1	SR10050120	Rotary Switch, Selector
J401	35	35	35	YP10001130	Plug
J435					
P700	1	1	1	YD22082010	P700 MAIN AMP. BOARD P.W. Board
	1	1	1	ZZ22082010	P.W. Board Assembly
P707	32	32	32	3444118050	Spacer
P708	26	26	26	2933118020	Spacer
R701	1	1	1	RT05102140	Resistor, 1kΩ ±5% ¼W
R702	1	1	1	RT05102140	Resistor, 1kΩ ±5% ¼W
R703	1	1	1	RT05333140	Resistor, 33kΩ ±5% ¼W
R704	1	1	1	RT05333140	Resistor, 33kΩ ±5% ¼W
R705	1	1	1	RT05682140	Resistor, 6.8kΩ ±5% ¼W
R706	1	1	1	RT05682140	Resistor, 6.8kΩ ±5% ¼W
R707	1	1	1	RT05102140	Resistor, 1kΩ ±5% ¼W
R708	1	1	1	RT05102140	Resistor, 1kΩ ±5% ¼W
R709	1	1	1	RT05822140	Resistor, 8.2kΩ ±5% ¼W
R710	1	1	1	RT05822140	Resistor, 8.2kΩ ±5% ¼W
R711	1	1	1	RA05020170	Trimming Resistor, 5kΩ (B)
R712	1	1	1	RA05020170	Trimming Resistor, 5kΩ (B)
R713	1	1	1	RT05153140	Resistor, 15kΩ ±5% ¼W
R714	1	1	1	RT05153140	Resistor, 15kΩ ±5% ¼W
R715	1	1	1	RT05244140	Resistor, 240kΩ ±5% ¼W
R716	1	1	1	RT05244140	Resistor, 240kΩ ±5% ¼W
R717	1	1	1	RT05242140	Resistor, 2.4kΩ ±5% ¼W
R718	1	1	1	RT05242140	Resistor, 2.4kΩ ±5% ¼W
R719	1	1	1	RT05333140	Resistor, 33kΩ ±5% ¼W
R720	1	1	1	RT05333140	Resistor, 33kΩ ±5% ¼W
R721	1	1	1	RT05242140	Resistor, 2.4kΩ ±5% ¼W
R722	1	1	1	RT05242140	Resistor, 2.4kΩ ±5% ¼W
R723	1	1	1	GF05102120	Resistor, 1kΩ ±5% ¼W
R724	1	1	1	GF05220120	Resistor, 22Ω ±5% ¼W
R725	1	1	1	GF05330140	Resistor, 33Ω ±5% ¼W
R726	1	1	1	GF05330140	Resistor, 33Ω ±5% ¼W
R727	1	1	1	RT05472140	Resistor, 4.7kΩ ±5% ¼W
R728	1	1	1	RT05472140	Resistor, 4.7kΩ ±5% ¼W
R729	1	1	1	RT05820140	Resistor, 82Ω ±5% ¼W
R730	1	1	1	RT05820140	Resistor, 82Ω ±5% ¼W
R731	1	1	1	RA03010020	Trimming Resistor, 300Ω (B)
R732	1	1	1	RA03010020	Trimming Resistor, 300Ω (B)
R733	1	1	1	GF05681140	Resistor, 680Ω ±5% ¼W
R734	1	1	1	GF05681140	Resistor, 680Ω ±5% ¼W
R735	1	1	1	GF05331140	Resistor, 330Ω ±5% ¼W

- (U) for U.S.A.
- (C) for Canada
- (E) for Europe

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
R736	1	1	1	GF05331140	Resistor, 330Ω ±5% ¼W
R737	1	1	1	GF05301140	Resistor, 300Ω ±5% ¼W
R738	1	1	1	GF05301140	Resistor, 300Ω ±5% ¼W
R739	1	1	1	GF05241140	Resistor, 240Ω ±5% ¼W
R740	1	1	1	GF05241140	Resistor, 240Ω ±5% ¼W
R741	1	1	1	GF05271140	Resistor, 270Ω ±5% ¼W
R742	1	1	1	GF05271140	Resistor, 270Ω ±5% ¼W
R743	1	1	1	GF05241140	Resistor, 240Ω ±5% ¼W
R744	1	1	1	GF05241140	Resistor, 240Ω ±5% ¼W
R745	1	1	1	GF05221140	Resistor, 220Ω ±5% ¼W
R746	1	1	1	GF05221140	Resistor, 220Ω ±5% ¼W
R747	1	1	1	GF05512140	Resistor, 5.1kΩ ±5% ¼W
R748	1	1	1	GF05512140	Resistor, 5.1kΩ ±5% ¼W
R749	1	1	1	GF05562140	Resistor, 5.6kΩ ±5% ¼W
R750	1	1	1	GF05562140	Resistor, 5.6kΩ ±5% ¼W
R751	1	1	1	GF05223140	Resistor, 22kΩ ±5% ¼W
R752	1	1	1	GF05223140	Resistor, 22kΩ ±5% ¼W
R753	1	1	1	GJ05100020	Resistor, 10Ω ±5% 2W
R754	1	1	1	GJ05100020	Resistor, 10Ω ±5% 2W
R755	1	1	1	GF05100140	Resistor, 10Ω ±5% ¼W
R756	1	1	1	GF05100140	Resistor, 10Ω ±5% ¼W
R757	1	1	1	GF05100140	Resistor, 10Ω ±5% ¼W
R758	1	1	1	GF05100140	Resistor, 10Ω ±5% ¼W
R759	1	1	1	GF05221120	Resistor, 220Ω ±5% ½W
R760	1	1	1	GF05221120	Resistor, 220Ω ±5% ½W
R761	1	1	1	GF05221120	Resistor, 220Ω ±5% ½W
R762	1	1	1	GF05221120	Resistor, 220Ω ±5% ½W
R763	1	1	1	GW10392050	Resistor, 0.39Ω ±10% 5W
R764	1	1	1	GW10392050	Resistor, 0.39Ω ±10% 5W
R765	1	1	1	GW10392050	Resistor, 0.39Ω ±10% 5W
R766	1	1	1	GW10392050	Resistor, 0.39Ω ±10% 5W
R767	1	1	1	RC10022120	Resistor, 2.2Ω ±10% ½W
R768	1	1	1	RC10022120	Resistor, 2.2Ω ±10% ½W
R769	1	1	1	RC10562120	Resistor, 5.6kΩ ±10% ½W
R770	1	1	1	RC10562120	Resistor, 5.6kΩ ±10% ½W
R771	1	1	1	RT05223140	Resistor, 22kΩ ±5% ¼W
R772	1	1	1	RT05183140	Resistor, 18kΩ ±5% ¼W
R773	1	1	1	RT05682140	Resistor, 6.8kΩ ±5% ¼W
R774	1	1	1	RT05393140	Resistor, 39kΩ ±5% ¼W
R775	1	1	1	RT05184140	Resistor, 180kΩ ±5% ¼W
R776	1	1	1	GJ05331010	Resistor, 330Ω ±5% 1W
P711	5	5	5	75061251P0	Jumper, 12.5 mm
C701	1	1	1	EE33502510	Electrolytic Cap., 3.3μF ±20% 25V
C702	1	1	1	EE33502510	Electrolytic Cap., 3.3μF ±20% 25V
C703	1	1	1	DD16201010	Ceramic Cap., 200pF 50V
C704	1	1	1	DD16201010	Ceramic Cap., 200pF 50V
C705	1	1	1	EE47601620	Electrolytic Cap., 47μF ±20% 16V
C706	1	1	1	EE47601620	Electrolytic Cap., 47μF ±20% 16V
C707	1	1	1	DD10030500	Ceramic Cap., 3pF 500V
C708	1	1	1	DD10030500	Ceramic Cap., 3pF 500V
C709	1	1	1	EA47605090	Electrolytic Cap., 47μF ±10% 50V
C710	1	1	1	EA47605090	Electrolytic Cap., 47μF ±10% 50V
C711	1	1	1	DF16103050	Film Cap., 0.01μF ±10% 50V
C712	1	1	1	DF16103050	Film Cap., 0.01μF ±10% 50V
C713	1	1	1	DF16103050	Film Cap., 0.01μF ±10% 50V
C714	1	1	1	DF16103050	Film Cap., 0.01μF ±10% 50V
C715	1	1	1	DF17104010	Film Cap., 0.1μF 50V

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
C716	1	1	1	DF17104010	Film Cap., 0.1μF 50V
C717	1	1	1	DF17104010	Film Cap., 0.1μF 50V
C718	1	1	1	DF17104010	Film Cap., 0.1μF 50V
C719	1	1	1	EE10601620	Electrolytic Cap., 10μF ±20% 16V
C720	1	1	1	EE10601620	Electrolytic Cap., 10μF ±20% 16V
C721	1	1	1	EE10601620	Electrolytic Cap., 10μF ±20% 16V
C722	1	1	1	EE10601620	Electrolytic Cap., 10μF ±20% 16V
C723	1	1	1	DK16101500	Ceramic Cap., 100pF 500V
C724	1	1	1	DK16101500	Ceramic Cap., 100pF 500V
C725	1	1	1	DK16101500	Ceramic Cap., 100pF 500V
C726	1	1	1	DK16101500	Ceramic Cap., 100pF 500V
C727	1	1	1	DF17104520	Film Cap., 0.1μF ±20% 200V
C728	1	1	1	DF17104520	Film Cap., 0.1μF ±20% 200V
C729	1	1	1	EA10603590	Electrolytic Cap., 10μF ±10% 35V
C730	1	1	1	EA47601690	Electrolytic Cap., 47μF ±10% 16V
C731	1	1	1	EA22701090	Electrolytic Cap., 220μF ±10% 10V
C732	1	1	1	EA22705090	Electrolytic Cap., 220μF ±10% 50V
Q701	1	1	1	HT107502B0	Transistor, 2SA750 E, U
Q702	1	1	1	HT107502B0	Transistor, 2SA750 E, U
Q703	1	1	1	HT107502B0	Transistor, 2SA750 E, U
Q704	1	1	1	HT107502B0	Transistor, 2SA750 E, U
Q705	1	1	1	HV00003120	Diode, MV-13
Q706	1	1	1	HV00003120	Diode, MV-13
Q707	1	1	1	HT318853B0	Transistor, 2SC1885 C, D, E
Q708	1	1	1	HT318853B0	Transistor, 2SC1885 C, D, E
Q709	1	1	1	HT309451Q0	Transistor, 2SC945 Q
Q710	1	1	1	HT309451Q0	Transistor, 2SC945 Q
Q711	1	1	1	HT107331Q0	Transistor, 2SA733 Q
Q712	1	1	1	HT107331Q0	Transistor, 2SA733 Q
Q713	1	1	1	HD20002210	Diode, 1S2472 (Gr)
Q714	1	1	1	HD20002210	Diode, 1S2472 (Gr)
Q715	1	1	1	HD20002210	Diode, 1S2472 (Gr)
Q716	1	1	1	HD20002210	Diode, 1S2472 (Gr)
Q717	1	1	1	HD20002210	Diode, 1S2472 (Gr)
Q718	1	1	1	HD20002210	Diode, 1S2472 (Gr)
Q719	1	1	1	HD20002210	Diode, 1S2472 (Gr)
Q720	1	1	1	HD20002210	Diode, 1S2472 (Gr)
Q721	1	1	1	HT315672B0	Transistor, 2SC1567 Q, R
Q722	1	1	1	HT107942B0	Transistor, 2SA794 Q, R
Q723	1	1	1	HT315672B0	Transistor, 2SC1567 Q, R
Q724	1	1	1	HT107942B0	Transistor, 2SA794 Q, R
Q725	1	1	1	HD20002210	Diode, 1S2472 (Gr)
Q726	1	1	1	HD20002210	Diode, 1S2472 (Gr)
Q727	1	1	1	HD20002210	Diode, 1S2472 (Gr)
Q728	1	1	1	HD20002210	Diode, 1S2472 (Gr)
Q729	1	1	1	HV00003120	Diode, MV-13
Q730	1	1	1	HV00003120	Diode, MV-13
Q731	1	1	1	HD20005010	Diode, W06B
Q732	1	1	1	HD20005010	Diode, W06B
Q733	1	1	1	HD20005010	Diode, W06B
Q734	1	1	1	HD20005010	Diode, W06B
Q735	1	1	1	HH00003030	Thermistor, STD-04
Q736	1	1	1	HH00003030	Thermistor, STD-04
Q737	1	1	1	HD30030090	Diode, WZ-177
Q738	1	1	1	HT309452A0	Transistor, 2SC945 Q, R
Q739	1	1	1	HT309452A0	Transistor, 2SC945 Q, R
Q740	1	1	1	HT313182C0	Transistor, 2SC1318 R, S

- (U) for U.S.A.
- (C) for Canada
- (E) for Europe

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
Q741	1	1	1	HD20003210	Diode, 1S2471 (BI)
L701	1	1	1	LC22620010	Coil, 2.6μH
L702	1	1	1	LC22620010	Coil, 2.6μH
L703	1	1	1	LY20240090	Relay
J701					
J729	29	29	29	YP10001130	Plug
P800	1	1	1	YA22040310	P.W. Board
	1	1	1	ZZ22040310	P.W. Board Assembly
P808	10	10	10	2933118020	Spacer
R801	1	1	1	GJ05220020	Resistor, 22Ω ±5% 2W
R802	1	1	1	GF05100140	Resistor, 10Ω ±5% ¼W
R803	1	1	1	RT05152140	Resistor, 1.5kΩ ±5% ¼W
R804	1	1	1	RT05152140	Resistor, 1.5kΩ ±5% ¼W
R805	1	1	1	GJ05221030	Resistor, 220Ω ±5% 3W
R806	1	1	1	RT05363140	Resistor, 36kΩ ±5% ¼W
R807	1	1	1	RT05273140	Resistor, 27kΩ ±5% ¼W
R808	1	1	1	RA05020130	Trimming Resistor, 5kΩ (B)
P811	1	1	1	75061251P0	Jumper,
C801	1	1	1	DK18103510	Ceramic Cap., 0.01μF 500V
C802	1	1	1	EA47706310	Electrolytic Cap., 470μF 63V
C803	1	1	1	EA47705090	Electrolytic Cap., 470μF 50V
C804	1	1	1	EA10705090	Electrolytic Cap., 100μF 50V
C805	1	1	1	DF17473050	Film Cap., 0.047μF 50V
C806	1	1	1	DK18403020	Ceramic Cap., 0.04μF 50V
C807	1	1	1	EA33505090	Electrolytic Cap., 3.3μF 50V
C808	1	1	1	EA47701690	Electrolytic Cap., 470μF 16V
C809	1	1	1	EA10801090	Electrolytic Cap., 1000μF 10V
Q801	1	1	1	HD20012030	Diode, DS132B
Q802	1	1	1	HD20011030	Diode, DS131B
Q803	1	1	1	HT403302A0	Transistor, 2SD330 D, E
Q804	1	1	1	HT309452A0	Transistor, 2SC945 Q, R
Q805	1	1	1	HD30021090	Diode, BZ-140 14V
Q806	1	1	1	HD20004130	Diode, S1B01-02
J801					
J814	14	14	14	YP10001140	Plug
J815					
J818	4	4	4	YJ08000210	Socket, Fuse
F801	1	1	1	FS10100080	Fuse, MGC 1A 30mm
F802	1	1	1	FS10200060	Fuse, MGC 2A 30 mm
F801			1	FS10100900	Fuse, SGA 1A 20 mm
F802			1	FS10200900	Fuse, SGA 2A 20 mm
PE01	1	1	1	YD29151082	P.W. Board
	1	1	1	ZZ22081082	P.W. Board Assembly
PE08	2	2	2	2933118020	Spacer
RE01	1	1	1	RT05474140	Resistor, 470kΩ ±5% ¼W
RE02	1	1	1	RT05474140	Resistor, 470kΩ ±5% ¼W
RE03	1	1	1	RT05391140	Resistor, 390Ω ±5% ¼W
RE04	1	1	1	RT05391140	Resistor, 390Ω ±5% ¼W
RE05	1	1	1	RN05105140	Resistor, 1MΩ ±5% ¼W

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
RE06	1	1	1	RN05105140	Resistor, 1MΩ ±5% ¼W
RE07	1	1	1	RN05104140	Resistor, 100kΩ ±5% ¼W
RE08	1	1	1	RT05103140	Resistor, 10kΩ ±5% ¼W
RE09	1	1	1	RT05273140	Resistor, 27kΩ ±5% ¼W
RE10	1	1	1	RT05273140	Resistor, 27kΩ ±5% ¼W
RE11	1	1	1	RT05102140	Resistor, 1kΩ ±5% ¼W
RE12	1	1	1	RT05102140	Resistor, 1kΩ ±5% ¼W
RE13	1	1	1	RT05752140	Resistor, 7.5kΩ ±5% ¼W
RE14	1	1	1	RT05752140	Resistor, 7.5kΩ ±5% ¼W
RE15	1	1	1	RT05102140	Resistor, 1kΩ ±5% ¼W
RE16	1	1	1	RT05102140	Resistor, 1kΩ ±5% ¼W
RE17	1	1	1	RT05474140	Resistor, 470kΩ ±5% ¼W
RE18	1	1	1	RT05474140	Resistor, 470kΩ ±5% ¼W
RE19	1	1	1	RT05562140	Resistor, 5.6kΩ ±5% ¼W
RE20	1	1	1	RT05562140	Resistor, 5.6kΩ ±5% ¼W
RE21	1	1	1	RT05123140	Resistor, 12kΩ ±5% ¼W
RE22	1	1	1	RT05123140	Resistor, 12kΩ ±5% ¼W
RE23	1	1	1	RT05334140	Resistor, 330kΩ ±5% ¼W
RE24	1	1	1	RT05334140	Resistor, 330kΩ ±5% ¼W
RE25	1	1	1	RT05562140	Resistor, 5.6kΩ ±5% ¼W
RE26	1	1	1	RT05562140	Resistor, 5.6kΩ ±5% ¼W
RE27	1	1	1	RT05562140	Resistor, 5.6kΩ ±5% ¼W
RE28	1	1	1	RT05562140	Resistor, 5.6kΩ ±5% ¼W
RE29	1	1	1	RT05273140	Resistor, 27kΩ ±5% ¼W
RE30	1	1	1	RT05273140	Resistor, 27kΩ ±5% ¼W
RE31	1	1	1	RT05123140	Resistor, 12kΩ ±5% ¼W
RE32	1	1	1	RT05123140	Resistor, 12kΩ ±5% ¼W
RE33	1	1	1	RT05153140	Resistor, 15kΩ ±5% ¼W
RE34	1	1	1	RT05153140	Resistor, 15kΩ ±5% ¼W
RE35	1	1	1	RT05334140	Resistor, 330kΩ ±5% ¼W
RE36	1	1	1	RT05334140	Resistor, 330kΩ ±5% ¼W
RE37	1	1	1	RT05273140	Resistor, 27kΩ ±5% ¼W
RE38	1	1	1	RT05273140	Resistor, 27kΩ ±5% ¼W
RE39	1	1	1	RT05225140	Resistor, 2.2MΩ ±5% ¼W
RE40	1	1	1	RT05225140	Resistor, 2.2MΩ ±5% ¼W
RE41	1	1	1	RT05683140	Resistor, 68kΩ ±5% ¼W
RE42	1	1	1	RT05683140	Resistor, 68kΩ ±5% ¼W
RE43	1	1	1	RT05473140	Resistor, 47kΩ ±5% ¼W
RE44	1	1	1	RT05473140	Resistor, 47kΩ ±5% ¼W
RE45	1	1	1	RT05103140	Resistor, 10kΩ ±5% ¼W
RE46	1	1	1	RT05103140	Resistor, 10kΩ ±5% ¼W
RE47	1	1	1	RT05221140	Resistor, 220Ω ±5% ¼W
RE48	1	1	1	RT05221140	Resistor, 220Ω ±5% ¼W
RE49	1	1	1	RT05474140	Resistor, 470kΩ ±5% ¼W
RE50	1	1	1	RT05474140	Resistor, 470kΩ ±5% ¼W
RE51	1	1	1	RD01040052	Variable Resistor, 100kΩ (B) High
RE52	1	1	1	RD01040052	Variable Resistor, 100kΩ (B) Middle
RE53	1	1	1	RD01040052	Variable Resistor, 100kΩ (B) Low
RE54	1	1	1	RT05821140	Resistor, 820Ω ±5% ¼W
RE55	1	1	1	RC00000120	Resistor, 0Ω
RE56	1	1	1	RC00000120	Resistor, 0Ω
CE01	1	1	1	DF17224050	Film Cap., 0.22μF ±20% 50V
CE02	1	1	1	DF17224050	Film Cap., 0.22μF ±20% 50V
CE03	1	1	1	EA10603590	Electrolytic Cap., 10μF ±10% 35V
CE04	1	1	1	EA10603590	Electrolytic Cap., 10μF ±10% 35V
CE05	1	1	1	EE47502510	Electrolytic Cap., 4.7μF ±20% 25V
CE06	1	1	1	EE47502510	Electrolytic Cap., 4.7μF ±20% 25V

- (U) for U.S.A.
- (C) for Canada
- (E) for Europe

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
CE07	1	1	1	DD16101010	Ceramic Cap., 100pF ±10% 50V
CE08	1	1	1	DD16101010	Ceramic Cap., 100pF ±10% 50V
CE09	1	1	1	DF16222050	Film Cap., 0.0022μF ±10% 50V
CE10	1	1	1	DF16222050	Film Cap., 0.0022μF ±10% 50V
CE11	1	1	1	DF16472050	Film Cap., 0.0047μF ±10% 50V
CE12	1	1	1	DF16472050	Film Cap., 0.0047μF ±10% 50V
CE13	1	1	1	DF16223050	Film Cap., 0.022μF ±10% 50V
CE14	1	1	1	DF16223050	Film Cap., 0.022μF ±10% 50V
CE15	1	1	1	DF16223050	Film Cap., 0.022μF ±10% 50V
CE16	1	1	1	DF16223050	Film Cap., 0.022μF ±10% 50V
CE17	1	1	1	DF16822050	Film Cap., 0.0082μF ±10% 50V
CE18	1	1	1	DF16822050	Film Cap., 0.0082μF ±10% 50V
CE19	1	1	1	EE10505010	Electrolytic Cap., 1μF ±20% 50V
CE20	1	1	1	EE10505010	Electrolytic Cap., 1μF ±20% 50V
CE21	1	1	1	EE33505010	Electrolytic Cap., 33μF ±10% 50V
CE22	1	1	1	EE33505010	Electrolytic Cap., 33μF ±10% 50V
CE23	1	1	1	EQ10505010	Electrolytic Cap., 1μF ±30% 50V
CE24	1	1	1	EQ10505010	Electrolytic Cap., 1μF ±30% 50V
CE25	1	1	1	EA22703590	Electrolytic Cap., 220μF ±10% 35V
HE01	1	1	1	HT313283A0	Transistor, 2SC1328 S, T, U
HE02	1	1	1	HT313283A0	Transistor, 2SC1328 S, T, U
HE03	1	1	1	HT107222A0	Transistor, 2SA722 S, T
HE04	1	1	1	HT107222A0	Transistor, 2SA722 S, T
HE05	1	1	1	HT313283A0	Transistor, 2SC1328 S, T, U
HE06	1	1	1	HT313283A0	Transistor, 2SC1328 S, T, U
HE07	1	1	1	HT107222A0	Transistor, 2SA722 S, T
HE08	1	1	1	HT107222A0	Transistor, 2SA722 S, T
JE01					
JE08	8	8	8	YP10001130	Plug
PH01	1	1		YD29151090	P.W. Board
	1	1		ZZ22041090	P.W. Board Assembly
RH01	1	1		RT05102140	Resistor, 1kΩ ±5% ¼W
RH02	1	1		RT05102140	Resistor, 1kΩ ±5% ¼W
RH04	1	1		RT05105140	Resistor, 1MΩ ±5% ¼W
RH05	1	1		RT05105140	Resistor, 1MΩ ±5% ¼W
RH06	1	1		RT05472140	Resistor, 4.7kΩ ±5% ¼W
RH07	1	1		RT05472140	Resistor, 4.7kΩ ±5% ¼W
RH08	1	1		RT05225140	Resistor, 2.2MΩ ±5% ¼W
RH09	1	1		RT05225140	Resistor, 2.2MΩ ±5% ¼W
CH01	1	1		DF15222050	Film Cap., 0.0022μF ±10% 50V
CH02	1	1		DF15222050	Film Cap., 0.0022μF ±10% 50V
CH03	1	1		DF16682050	Film Cap., 0.0068μF ±10% 50V
CH04	1	1		DF16682050	Film Cap., 0.0068μF ±10% 50V
CH05	1	1		EV22403510	Electrolytic Cap., 0.22μF ±20% 35V
CH06	1	1		EV22403510	Electrolytic Cap., 0.22μF ±20% 35V
SH01	1	1		SP04040140	Push Switch
JH01	1	1		YP10001200	Plug
JH02	1	1		YP10001200	Plug
JH09					
JH28	20	20	20	YP10001200	Plug
PH01		1		YD29150050	P.W. Board
		1		ZZ22048050	P.W. Board Assembly
REF.	Q'TY			PART NO.	DESCRIPTION
DESIG.	U	C	E		
RH01			1	RT05102140	Resistor, 1kΩ ±5% ¼W
RH02			1	RT05102140	Resistor, 1kΩ ±5% ¼W
RH04			1	RT05105140	Resistor, 1MΩ ±5% ¼W
RH05			1	RT05105140	Resistor, 1MΩ ±5% ¼W
RH06			1	RT05472140	Resistor, 4.7kΩ ±5% ¼W
RH07			1	RT05472140	Resistor, 4.7kΩ ±5% ¼W
RH08			1	RT05225140	Resistor, 2.2MΩ ±5% ¼W
RH09			1	RT05225140	Resistor, 2.2MΩ ±5% ¼W
CH01			1	DF16333050	Film Cap., 0.033μF ±10% 50V
CH02			1	DF16333050	Film Cap., 0.033μF ±10% 50V
CH03			1	DF16682050	Film Cap., 0.0068μF ±10% 50V
CH04			1	DF16682050	Film Cap., 0.0068μF ±10% 50V
SH01			1	SP04040130	Push Switch
JH01					
JH17			17	YP10001200	Plug
PT01	1	1	1	YD29151100	P.W. Board
	1	1	1	ZZ29153100	P.W. Board Assembly
PT07	4	4	4	3444118050	Spacer
RT01	1	1	1	RT05683140	Resistor, 68kΩ ±5% ¼W
RT02	1	1	1	RT05683140	Resistor, 68kΩ ±5% ¼W
RT03	1	1	1	RT05153140	Resistor, 15kΩ ±5% ¼W
RT04	1	1	1	RT05153140	Resistor, 15kΩ ±5% ¼W
RT05	1	1	1	GJ05331020	Resistor, 330Ω ±5% 2W
RT06	1	1	1	GJ05331020	Resistor, 330Ω ±5% 2W
RT07	1	1	1	GU05151120	Resistor, 150Ω ±5% ¼W
RT08	1	1	1	GU05151120	Resistor, 150Ω ±5% ¼W
CT01	1	1	1	DD16121010	Ceramic Cap., 120pF ±10% 50V
CT02	1	1	1	DD16121010	Ceramic Cap., 120pF ±10% 50V
CT03	1	1	1	DF16273050	Film Cap., 0.027μF ±10% 50V
CT04	1	1	1	DF16273050	Film Cap., 0.027μF ±10% 50V
ST01	1	1	1	SP04040110	Push Switch
JT01					
JT16	16	16	16	YP10001200	Plug
PZ01	1	1	1	YD28860160	P.W. Board
	1	1	1	ZZ28891160	P.W. Board Assembly
MZ01					
MZ05	5	5	5	IN10080070	Lamp
JZ01					
JZ10	10	10	10	YJ08000170	Socket
JZ11					
JZ14	4	4	4	YP10001200	Plug
M001	1	1	1	IM11042270	DC Meter
M002	1	1	1	IM11042240	DC Meter
M003	1	1	1	IN10080340	Lamp
M005	1	1	1	IN10080070	Lamp
M006	1	1	1	IN10080070	Lamp
L001	1	1	1	LF11200460	Ant. Coil
L002	1	1	1	LC11540020	Choke Coil

- (U) for U.S.A.
- (C) for Canada
- (E) for Europe

REF. DESIG.	Q'TY			PART NO.	DESCRIPTION
	U	C	E		
L003	1	1		TS60505010	Power Transformer
L003			1	TS60505020	Power Transformer
S001	1	1	1	SP02010150	Power Switch
C001	1	1	1	DK18103010	Ceramic Cap., 0.01 μ F 50V
C002	1	1	1	DK18103010	Ceramic Cap., 0.01 μ F 50V
C003	1	1	1	EC10905020	Electrolytic Cap., 10000 μ F 50V
C004	1	1	1	EC10905020	Electrolytic Cap., 10000 μ F 50V
C006		1		DF17473590	Film Cap., 0.047 μ F
C006			1	DF17223800	Film Cap., 0.022 μ F 1000V
C007	1	1	1	DK18103510	Ceramic Cap., 0.01 μ F 500V
G001	1			BF10400040	Printed Comp.
R001	1	1	1	RS05040050	Variable Resistor, 500k Ω Bal.
R002	1	1	1	RM02540220	Variable Resistor, 250k Ω Vol.
R003	1	1		RC10225120	Resistor, 2.2M Ω 1/2W
H007	1	1	1	HD20004290	Diode, S5VB
J001	1	1	1	BY04050010	Terminal
J002	1	1	1	YL01020030	Terminal
J003	1	1	1	YT01010050	Terminal
J004	1	1	1	YT02040140	Terminal
J005	1	1	1	YT02040140	Terminal
J006	1	1	1	YT02040140	Terminal
J007	1	1	1	YT02040170	Terminal
J008	1	1	1	YT02010130	Terminal
J009	1	1	1	YJ05000220	Socket
J010	1	1	1	YJ05000220	Socket
J011	1	1	1	YJ05000220	Socket
J012	1	1	1	YJ05000220	Socket
J013	1	1	1	YT03040160	Terminal
J014	1	1	1	YT03040160	Terminal
J015	1	1	1	YJ01000980	Jack
J016	1	1	1	YJ08000190	Socket
J017	1	1	1	YJ08000190	Socket
J018	1	1		YJ08000120	Socket
J018			1	YJ08000220	Socket
J019	1	1	1	YJ04000560	Socket
J020	1	1	1	YJ04000560	Socket
J021			1	BY03110010	Terminal
H001	1	1	1	HT313432B0	Transistor, 2SC1343 B, C
H003	1	1	1	HT107532B0	Transistor, 2SA753 B, C
H002	1	1	1	HT313432B0	Transistor, 2SC1343 B, C
H004	1	1	1	HT107532B0	Transistor, 2SA753 B, C
H005	1	1	1	HV00005080	Varistor
H006	1	1	1	HV00005080	Varistor
W001	1	1		YC02400220	AC Cord
W001			1	YC01900030	AC Cord
F001			1	FS10400900	Fuse
F001	1	1		FS10500040	Fuse
F002		1		FS20500900	Fuse

22. TECHNICAL SPECIFICATIONS

Amplifier Section

RATED POWER OUTPUT, MINIMUM CONTINUOUS AVERAGE POWER	
PER CHANNEL, BOTH CHANNELS DRIVEN	52 WATTS
POWER BAND	20 Hz to 20 kHz
TOTAL HARMONIC DISTORTION	0.1%
LOAD IMPEDANCE	8 OHMS
Maximum Power Output, DIN 45500	62W
(less than 1% THD, 10 min. test)	
Power Bandwidth at 1% THD, DIN 45500	10 Hz ~ 60 kHz
I.M. Distortion (I.H.F. method, 60 Hz and 7 kHz mixed 4:1 at rated power output)	0.1%
Damping Factor	45
Sensitivity (at MAIN IN)	1.5 V
Impedance (at MAIN IN)	30 kOhms
Frequency Response for Power Amp only	±0.2 dB
(at 1 watt output, 20 Hz to 20 kHz)	

Preamplifier Section

Phono

Input Overload at 1 kHz	100 mV
Equivalent Input Noise	1.5 μ V
Dynamic Range	96 dB
(Dynamic Range is the ratio of input overload to equivalent input noise)	
Input Sensitivity	1.8 mV
Input Impedance	47 kOhms
Frequency Response, RIAA 20 Hz to 20 kHz	±0.75 dB
Signal-to-Noise Ratio	76 dB
(at rated output and 7.75 mV input)	
Signal-to-Noise Ratio, unweighted (DIN 45500)	45 dB
High Level (Aux and Tape)	
Input Sensitivity	180 mV
Input Impedance	85 kOhms
Frequency Response (includes power amp.)	10 Hz to 60 kHz ±1.25 dB
Signal-to-Noise Ratio	88 dB
(ref. to rated output and 775 mV input)	

Output Levels

Tape Out (ref. 7.75 mV at Phono inputs)	775 mV
Pre-Out (ref. 180 mV at Aux inputs)	1.5 V
(ref. 500 mV at Aux inputs, main amp disconnected)	4.2 V

Output Impedance

Tape Out	600 Ohms
Pre-Out	900 Ohms

FM Tuner Section

Sensitivity

IHF Usable	10.8 dBf (1.9 μ V)
IHF 50 dB Quieting	
(Mono)	17.3 dBf (4.0 μ V)
(Stereo)	37.2 dBf (40 μ V)
DIN Sensitivity	
(Mono, 26 dB S/N, 300 ohm input)	1.6 μ V
(Stereo, 46 dB S/N, 300 ohm input)	80 μ V
Quieting Slope (Mono)	
RF Input for 30 dB Quieting	9.8 dBf (1.7 μ V)
Quieting at:	
20 dBf (5.5 μ V)	51 dB
25 dBf (10 μ V)	58 dB
40 dBf (55 μ V)	65 dB
65 dBf (1000 μ V)	72 dB

Quieting Slope (Stereo)

Quieting at:

30 dBf (17 μ V)	40 dB
40 dBf (55 μ V)	50 dB
50 dBf (173 μ V)	56 dB
65 dBf (1000 μ V)	62 dB

Distortion (Mono)

at 50 dB Quieting, 1000 Hz	0.6 %
at 65 dBf (1000 μ V), 1000 Hz	0.15%

Hum and Noise

at 65 dBf (1000 μ V)	
Mono	-70dB

Frequency Response

30 Hz to 15 kHz	
Mono	+0.2, -2.0 dB
Stereo	\pm 2.0 dB

Capture Ratio

at 45 dBf (100 μ V)	1.5 dB
at 65 dBf (1000 μ V)	1.0 dB

Alternate Channel Selectivity

70 dB

Spurious Response Rejection

90 dB

Image Response Rejection

70 dB

I.F. Rejection (Balanced)

95 dB

A.M. Suppression

50 dB

Stereo Separation

100 Hz	42 dB
1000 Hz	45 dB
10 kHz	32 dB

Subcarrier Rejection	60 dB
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AM Tuner Section

IHF Usable Sensitivity	20 μ V
Distortion (THD), 30% Modulation	0.6%
Signal-to-Noise Ratio	49 dB
Frequency Response (\pm 3 dB)	40 Hz to 2.3 kHz
Alternate Channel Selectivity	46 dB
Image Rejection	45 dB
Spurious Response Rejection	50 dB
I.F. Rejection	40 dB

General

Power Requirements	220 V \sim 50 Hz
(E and N versions are featuring an external voltage selector for use on 110/120/240 V. Other versions can be converted by a qualified technician to operate on 110/120/240 V.)	

Power Consumption at rated output, both channels operating	220 Watts
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Idling Power (Volume Control at zero)	33 Watts
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Semiconductor Complement

Integrated Circuits	3
Transistors	45
Diodes	29
Field Effect Transistors	1

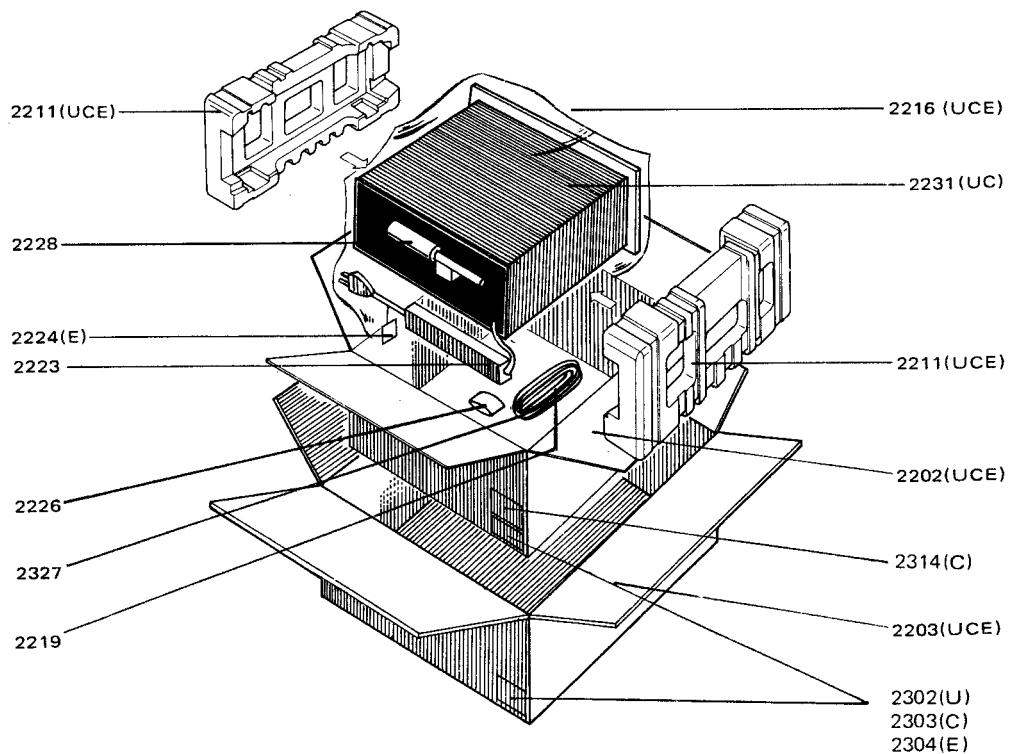
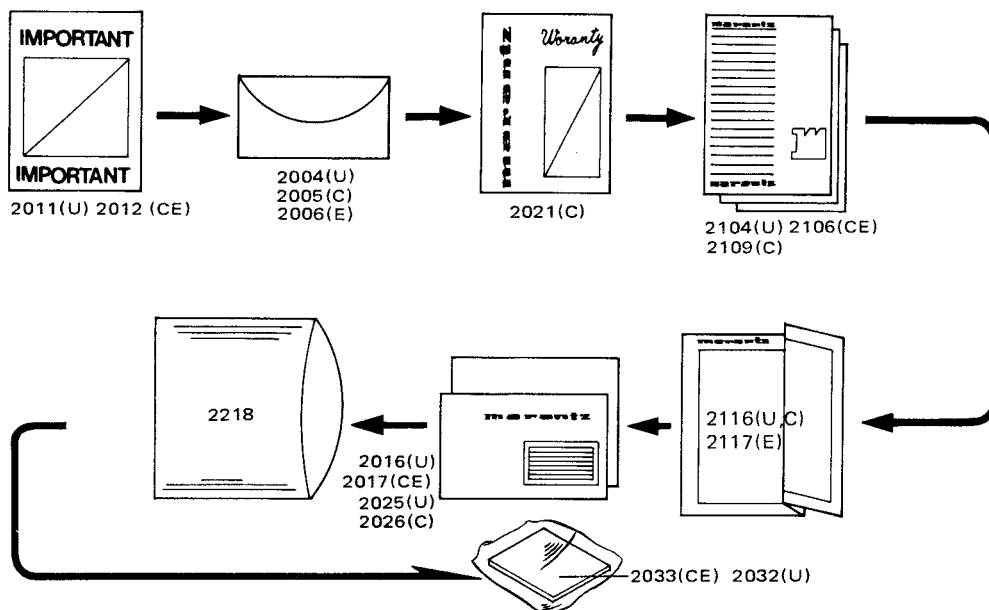
Dimensions

Panel Width	440 mm (17-1/4 inches)
Panel Height	137 mm (5-3/8 inches)
Depth	365 mm (14-3/8 inches)

Weight

Unit alone	14 kg (30.8 lbs.)
Packed for shipment	17 kg (37.4 lbs.)

23. PACKING MATERIAL EXPLODED VIEW



- (U) for U.S.A.
- (C) for Canada
- (E) for Europe



marantz

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